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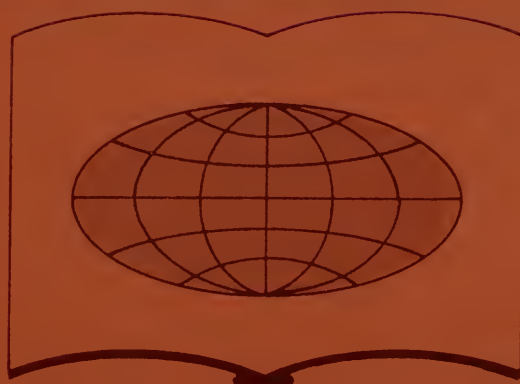
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Number 6

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All elements of the citations maintained in this mechanized file system are searchable by computer. In addition to the printed subject descriptors appearing in the Bulletin, other subject descriptors are incorporated in the tape file system as machine searchable but non-printable items. In the early issues some of these subject terms appear in the Bulletin as duplications. These duplications will be eliminated in later programs.

Since retrospective information was not previously published in searchable form, the next several issues of the Bulletin will contain selected coverage of pest control literature issued between 1960 and 1966. Additional retrospective material will be incorporated in future bulletins through the special bibliographies prepared by the Center. Current pest control literature will receive comprehensive coverage. Future expansion will include selected abstracts when such abstracts appear in the source document.

Recipients of this introductory issue are invited to send their comments and suggestions for its improvement to the U.S. Department of Agriculture, National Agricultural Library, Pesticides Information Center, 4112-Auditors Building, Washington, D. C. 20250. These comments together with computer produced statistical analyses will provide the bases for future changes.

*Blanche L. Oliveri*

Blanche L. Oliveri  
Acting Director  
National Agricultural Library



# PESTICIDES DOCUMENTATION BULLETIN

A BI-WEEKLY PUBLICATION OF

U. S. DEPARTMENT OF AGRICULTURE

Volume 4

March 15, 1968

Number 6

## OBJECTIVES AND SCOPE

The Pesticides Documentation Bulletin is compiled by the Pesticides Information Center, the first of its kind to be established within a national library. It is a bi-weekly index to the literature on pests and their control and the impact on the economy and man's total environment. The index includes literature on diseases, insects, nematodes, parasites, weeds, and other pests affecting plants, animals, man, our natural resources, and other values in man's environment. Literature on biological, chemical, cultural, ecological, mechanical, and integrated methods of pest control will be included. Special emphasis is given to the literature on the toxicological, physiological and epidemiological aspects of pests and their control by chemical and nonchemical methods.

For broader coverage of literature on agriculture and related subjects, please consult the Bibliography of Agriculture, a monthly publication of the National Agricultural Library.

## FORMAT

The Bulletin is a categorized bibliography, with citations arranged alphabetically by author under the following major subjects:

- 10 Entomology
- 20 Crop Protection
- 30 Livestock Protection
- 40 Commodity Protection
- 50 Environmental Contamination
- 55 Residues
- 60 Toxicology
- 65 Plant Physiology & Biochemistry
- 70 Chemistry
- 80 Engineering
- 90 Industry

Citations: Each citation consists of an accession number assigned serially with the last two digits representing the Bulletin's issue year, i.e. 3286-67. The citation number (minus the year) is used

in all indices. Following the accession number is the full title of the article; all personal authors; an abbreviated journal title; volume, issue and inclusive page numbers; date of publication; language abbreviation, if other than English; and the National Agricultural Library's call number. Subject descriptors, patent or grant numbers, bibliographer's notes, and abstracts or extracts may follow each citation when appropriate.

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## ACKNOWLEDGMENT

The Pesticides Information Center, National Agricultural Library, gratefully acknowledges the cooperation and assistance of the Department of Defense; Health, Education, and Welfare; and Interior; the Federal Committee on Pest Control, and state and industrial organizations in the development of the Center and preparation of this Bulletin. Special thanks are expressed to the Federal Committee on Pest Control for its suggestions and support. We hope the Bulletin will serve as an example of the effectiveness of interdepartmental cooperation and the speed with which effective services can be developed through a coordinated and cooperative interdepartmental effort.

## TABLE OF CONTENTS

Items	Page
BIBLIOGRAPHY (Citations)	
10 ENTOMOLOGY	1
Systematics	1
Physiology and Biochemistry	2
Genetics	11
Medical Entomology	12
20 CROP PROTECTION	13
Diseases	13
Arthropods	28
Nematodes	33
Weeds	35
Other Pests	36
30 LIVESTOCK PROTECTION	36
Diseases	37
Arthropods	54
Parasites	55
40 COMMODITY PROTECTION	58
Storage Diseases	58
Arthropods	58
Rodents and Other Pests	*
Microbial Contamination	58
50 ENVIRONMENTAL CONTAMINATION	59
55 RESIDUES	59
60 TOXICOLOGY	61
65 PLANT PHYSIOLOGY & BIOCHEMISTRY	62
70 CHEMISTRY	64
80 ENGINEERING	65
90 INDUSTRY	65
Economics	*
Education	65
Regulations	*
SUBJECT INDEX	67
BIOGRAPHICAL INDEX	171
AUTHOR INDEX	173
ORGANIZATIONAL INDEX	179

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Fungus diseases (plants), Plant disease resistance.  
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Gossypium hirsutum were tested in artificially-inoculated  
sand in the greenhouse for susceptibility to seedling an-  
thracoze. the cotton varieties were assayed with both a  
highly pathogenic and a moderately pathogenic isolate of the  
causal fungus Colletotrichum gossypii. all varieties of  
G. hirsutum were extremely susceptible to the highly viru-  
lent strain, but Nanking was very resistant to both iso-  
lates. most eastern United States varieties of G.  
hirsutum were also very susceptible to the moderately  
pathogenic strain of the fungus, but a few of them were  
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Aug 1967 442.8 AN72  
Chemical control (plant diseases),  
Downy mildew (sugar beets), Peronospora farinosa,  
Sugar beets.
- 6718-68  
RAPID-INDEX METHODS FOR EXOCORTIS OF CITRUS.  
E G Calavan E F Frolich J B Carpenter C N Roistacher  
Phytopathology 53(10) 1138  
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California, Citrus, Exocortis (citrus), Indexing.
- 6719-68  
SENEIOGRAPHY OF FUSARIUM WILT OF TOMATO.  
H L Chambers M E Corden  
Phytopathology 53(9) 1006-1010, BIBL., PL.  
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Fusarium, Tomatoes, Wilt (tomatoes).
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EXTERNAL SYMPTOMS GIEMSA-STAINABLE CELL INCLUSIONS  
ASSOCIATED WITH VIRUS INFECTION IN CACTI.  
M Chessin R A Solberg P C Fischer  
Phytopathology 53(8) 988-989, BIBL., PL.  
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Chenopodium, Giemsa, Inclusion bodies, Mammillaria.
- 6721-68  
MOISTURE SENSITIVITY, MECHANICAL INJURY AND GIBBERELLIN  
TREATMENT OF BETA VULGARIS SEEDS.  
R S Chetram W Heydecker  
Nature 215 (5097), 210-211  
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Beets, Gibberellins, Humidity, Injuries, Seed treatment.



- 6722-68  
PORIA WEIRII ROOT ROT.  
T W Childs  
Phytopathology 53(10) 1124-1127, PL.  
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Poria, Pseudotsuga, Root rot (pseudotsuga menziesii).
- 6723-68  
PURIFICATION AND PROPERTIES OF PROMEGRASS MOSAIC VIRUS.  
R B Chin W B Sill Jr  
Phytopathology 53(11) 1285-1291, BIBL. 1290-1291, PL.  
Nov 1963 464.8 P56  
Bromus, Mosaic (bromus), N-butanol, Ribonucleic acid.
- 6724-68  
INFLUENCE OF BEAT-LABILE COMPONENTS OF THE RASPBERRY MOSAIC VIRUS COMPLEX ON GROWTH AND YIELD OF RED RASPBERRIES.  
R H Converse  
Phytopathology 53(11) 1251-1254, BIBL., TABS., PL.  
Nov 1963 464.8 P56  
Growth factors, Beat, Mosaic (raspberries), Raspberries.
- 6725-68  
INHERITANCE OF RESISTANCE IN PEPPER TO BACTERIAL SPOT.  
A A Cook R E Stall  
Phytopathology 53(9) 1060-1062, BIBL., PL.  
Sep 1963 464.8 P56  
Bacterial spot (redpeppers), Bredity, Piper nigrum, Plant disease resistance, Xanthomonas.
- 6726-68  
A PROBABILISTIC ANALYSIS OF FUNGUS CONTROL BY FOLIAR APPLICATION OF CHEMICALS.  
J R Cooke  
Diss Abstr Sect B 27 (12,PT.1), 4363B-4364B  
Jun 1967 Z5055.U49D53  
Chemical control (plant diseases), Fungus diseases (plants), Particle size determination, Pesticide application.
- 6727-68  
A COMPARISON OF FUSARIUM WILT INDICES OF COTTON VARIETIES WITH ROOT-KNOT AND STING NEMATODES AS PREDISPOSING AGENTS.  
W E Cooper B B Brodie  
Phytopathology 53(9) 1077-1080, BIBL. 1079-1080  
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Belonolaimus, Cotton, Fusarium, Meloidogyne, Nematodes, Wilt (cotton).
- 6728-68  
INVERSION PHENOMENON INDUCED BY NABAM DERIVATIVES.  
M E Corden R C Carlstrom W M Brown B K Koolheki  
Phytopathology 53(10) 1138  
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Fungus growth inhibitors, Nabam, Thielaviopsis, Thiram, Verticillium.
- 6729-68  
THE FLAT APPLE DISEASE.  
D L Coyler J A Milbrath  
Phytopathology 53(10) 1138  
Oct 1963 464.8 P56  
Apples, Flat apple (apples), Virus diseases (plants).
- 6730-68  
CONTROL OF PEACH BACTERIAL SPOT WITH XANTHOMONAS PRUNI BACTERIOFAGE.  
Phytopathology 53(7) 746-747  
Jul 1963 464.8 P56  
Bacterial spot (peaches), Biological control (plant diseases), Peaches.
- 6731-68  
VARIABILITY IN PATHOGENICITY IN THE BACTERIAL BLIGHT PATHOGEN OF SOYBEANS.  
J E Cross  
Diss Abstr Sect B 27 (12,PT.1), 4208B  
Jun 1967 Z5055.U49D53  
Bacterial blight (soybeans), Bacterial diseases (plants), Pseudomonas glycinia, Soybeans.
- 6732-68  
EFFECTS OF MELOIDOGYNE SPP. AND TYLENCHORHYNCHUS CLAYTONI ON PEA WILT INCITED BY FUSARIUM OXYSPORIUM F. PISI RACE 1.  
R A Davis W R Jenkins  
Phytopathology 53(7) 745  
Jul 1963 464.8 P56  
Fusarium, Meloidogyne, Plant disease resistance, Soil series, Tylenchorhynchus claytoni, Wilt (peas).
- 6733-68  
EFFECT OF UREDIOSPORE CONCENTRATION ON DETERMINATION OF RACES OF RUST FUNGI.  
A D Davison E K Vaughan  
Phytopathology 53(10) 1138  
Oct 1963 464.8 P56  
Taxonomy, Uredinales, Urediospore.
- 6734-68  
PSEUDOMONAS CARYOPHYLLI IN CARNATION. I. RELATION OF SOIL TEMPERATURE TO SYMPTOM EXPRESSION.  
R S Dickey P E Nelson  
Phytopathology 53(10) 1237-1238, BIBL., PL.  
Oct 1963 464.8 P56  
Dianthus caryophyllus, Pseudomonas, Soil temperature.
- 6735-68  
TRICHLOROBENZENE AS A SOIL TOXICANT AGAINST FOUR WOOD-DECAYING SOIL FUNGI.  
J D Diller E J Koch  
Phytopathology 53(7) 745  
Jul 1963 464.8 P56  
Fungicides, Soil fungi, Trichlorobenzene, Wood destroying fungi.
- 6736-68  
TRANSMISSION OF PSEUDOMONAS SYRINGAE IN PEACH TREES BY BUD PROPAGATION.  
W M Dowler D B Petersen  
Plant Dis Rep 51 (8) 666-668  
Aug 1967 1.9 P69P  
Bacterial canker (peaches), Bacterial diseases (plants), Dibromo-3-chloropropane, 1,2-, Peaches, Plant budding, Plant disease control, Plant disease transmission, Pseudomonas syringae.  
South Carolina Agricultural Experiment Station, Clemson, cooperating.  
Scion buds obtained from an orchard with a high incidence of bacterial canker were budded onto peach seedlings from canery stock. about 1200 of these June-budded trees were used to establish two orchards. sixty apparently healthy trees were planted in each orchard for comparison. by the end of the first growing season, 27 percent of the trees from the canker-infested orchard had died as compared with 17 percent of the others. bacteria, morphologically similar to Pseudomonas syringae, were isolated readily from the first group of trees but rarely from the healthy trees. soil injections of 1,2-dibromo-3-chloropropane during the second growing season resulted in a slight reduction in tree losses the following year.
- 6737-68  
HOST-PARASITE RELATIONS OF STEMPHYLIUM LEAFSPOT AND STEM CANKER OF BIRDSFOOT TREFOIL (LOTUS CORNICULATUS).  
C R Drake  
Phytopathology 53(9) 1094-1099, BIBL., PL.  
Sep 1963 464.8 P56  
Birdsfoot trefoil, Leaf spot (birds foot trefoil), Stem canker (birdsfoot trefoil), Stemphylium.
- 6738-68  
BEET RING MOTTLE DISEASE.  
J E Duffus A S Costa  
Phytopathology 53(12) 1422-1425, BIBL.  
Dec 1963 464.8 P56  
Aphididae, Beets, Ring mottle (beets), Spinach, Sugar beets.
- 6739-68  
A VIRUS-LIKE PARTICLE IN AVON AND FUNDY POTATOES.  
M M Dwurazna M Weintraub  
Phytopathology 53(7) 839-842, PL.  
Jul 1963 464.8 P56  
Plant disease transmission, Potatoes, Viruses.
- 6740-68  
BACTERIAL SPOT OF IVY CAUSED BY XANTHOMONAS BEDEBAC (ARNAUD, 1920, DOWSON 1939, IN NEW ZEALAND).  
D W Dye  
New Zeal J Sci 10 (2), 481-485  
Jun 1967 514 N482  
Bacterial diseases (plants), Bacterial spot (ivy), Xanthomonas hederae, New Zealand.
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CONTROL OF PENICILLIUM DECAY OF ORANGES WITH CERTAIN VOLATILE ALIPHATIC AMINES.  
J W Eckert M J Kolbezen  
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Sep 1963 464.8 P56  
Amines, Ammonia, Ethylamine, Isobutylamine, Isopropylamine,



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J W Eckert M J Kolbezen  
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Citrus, Dibromotetrachloroethane, symmetrical, DBTCE, Fruit, Fungicides, Penicillium.
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EFFECT OF ORGANIC PHOSPHOROUS PESTICIDES ON CERTAIN PHYTO-PATHOGENIC BACTERIA.  
A F El-Helaly M K Abo-el-Dahab F M Zeitoun  
Phytopathology 53(7) 762-764  
Jul 1963 464.8 p56  
Bacterial diseases (plants), Bactericides, Chemical control (plant diseases), Phosphorus.
- 6744-68  
EFFECTS OF BARLEY YELLOW DWARF VIRUS ON YIELD OF OATS AS INFLUENCED BY VARIETY, VIRUS STRAIN, AND DEVELOPMENTAL STAGE OF PLANTS AT INOCULATION.  
R M Endo C M Brown  
Phytopathology 53(8) 965-968, BIBL.  
Aug 1963 464.8 p56  
Barley, Oats, Yellow dwarf (barley).
- 6745-68  
INFLUENCE OF TEMPERATURE ON RATE OF GROWTH OF FIVE FUNGUS PATHOGENS OF TURFGRASS AND ON RATE OF DISEASE SPREAD.  
R M Endo  
Phytopathology 53(7) 857-861, BIBL. 860-861, TABS.  
Jul 1963 464.8 p56  
Corticium, Fungus diseases (plants), Fusarium, Grasses, Plant disease resistance, Plant disease transmission, Plant physiology, Plant temperature, Pythium, Rhizoctonia, Sclerotinia, Turf.
- 6746-68  
ANTIFUNGAL PHENOLIC ACIDS IN APPLE FRUITS AFTER INFECTION WITH SCLEROTINIA FRUCTIGENA.  
C H Fawcett D M Spencer  
Ann Appl Biol 60 (1), 87-96 REF  
Aug 1967 442.8 AN72  
Apples, Fungicides, Fungus diseases (plants), Phenols, Sclerotinia fructigena.
- 6747-68  
SUPPRESSION OF CORN HEAD SMUT BY IN-FURROW APPLICATIONS OF PENTACHLORONITROBENZENE.  
H S Fenwick W R Simpson  
Plant Dis Rep 51(8) 0626-628  
Aug 1967 1.9 P69P  
Chemical control (plant diseases), Corn, Fungicides, Head smut (corn), Pentachloronitrobenzene, Pesticide application, Sphacelotheca reiliana.  
Furrow treatment with pentachloronitrobenzene (PCNB) indicates some hope for a control over head smut of corn. at 20 lb/acre of PCNB, complete control of head smut was obtained in the greenhouse and application rates as low as 5 lb/acre gave some control in the field. the economics of control and minimal rate of the application will be investigated further in 1967.
- 6748-68  
POSSIBLE DETRIMENTAL EFFECT OF PYTHIUM ARTOTROGUS ON THE CULTIVATED MUSHROOM.  
C L Fergus J W Sinden L C Schisler E M Sigel  
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Mushrooms, Phytopathology, Pythium.
- 6749-68  
THE FUNGUS FLORA OF NONSUBERIZED ROOTS OF POORLY GROWING CHERRY TREES.  
P Fliegel K G Parker W F Mai  
Phytopathology 53(11) 1368-1369, BIBL.  
Nov 1963 464.8 p56  
Cherries, Flora, Fungi, Pratylenchus.
- 6750-68  
A SIMPLE METHOD OF MEASURING RATE OF PLANT VIRUS MOVEMENT FROM INOCULATED TOBACCO LEAVES TO STEM TIPS.  
R E Ford D F Bateman  
Phytopathology 53(10) 1139  
Oct 1963 464.8 p56  
Alfalfa, Leaves, Measurement, Potatoes, Tobacco.
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PHYTOPHTHORA ROOT ROT OF ALFALFA IN MINNESOTA.  
F I Frosheiser  
Plant Dis Rep 51 (8) 0 679-681  
Aug 1967 1.9 P69P  
Alfalfa, Fungus diseases (plants), Phytophthora megasperma, Root rot (alfalfa).  
University of Minnesota, Department of Plant Pathology and Physiology, St. Paul, cooperating.  
Stand depletion due to root rot was observed in several alfalfa fields in Minnesota in 1965. Phytophthora megasperma was isolated from roots of diseased plants. nine of eleven isolates tested were pathogenic on Vernal alfalfa plants in artificially-infested soil. infection was more severe in plants inoculated under 6 weeks old than 12 weeks old. only one field with current season infection was observed in 1966. phytophthora root rot may become a problem of alfalfa in Minnesota in wet areas, or during and following periods of excessive precipitation.
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GENETICS AND CYTOLOGY OF PHYTOPHTHORA.  
J Galindo G A Zentmyer  
Nature 214 (5095), 1356  
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Cytology, Fungus diseases (plants), Genetics, Phytophthora drechsleri.
- 6753-68  
APPROACH GRAFT TRANSMISSION OF TULARE APPLE MOSAIC VIRUS BETWEEN APPLE AND GOMPHRENA GLOBOSA.  
S M Garnsey  
Phytopathology 53(10) 1139  
Oct 1963 464.8 p56  
Apples, Gomphrena, Plant disease transmission, Plant grafting, Tulare mosaic (apples).
- 6754-68  
EVIDENCE FOR TWO DIFFERENT PATHOGENS OF PEANUT POD ROT.  
K H Garren  
Phytopathology 53(7) 746  
Jul 1963 464.8 p56  
Calcium sulfate, DESS, Fungus diseases (plants), Para-dimethylaminobenzenediazo sodium sulfonate, Peanuts, Pentachloronitrobenzene, Pod rot (peanuts), Pythium, Rhizoctonia.
- 6755-68  
VARIATION IN SUSCEPTIBILITY TO SCLEROTIUM ROLFII AMONG PEANUT VARIETIES.  
K H Garren  
Phytopathology 53(7) 746  
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Crop varieties, Peanuts, Plant disease resistance, Sclerotium, Stem rot (peanuts).
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RESISTANCE TO POWDERY MILDEW IN GRAPEVINES RELATED TO OSMOTIC VALUE AND ASSOCIATED FACTORS.  
A C Goheen W C Schnathorst  
Phytopathology 53(10) 1139  
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Grapes, Osmosis, Plant disease resistance, Powdery mildew (grapes).
- 6757-68  
AN APPARENT STRAIN OF TOBACCO RATTLE VIRUS ASSOCIATED WITH A YELLOW SPOTTING OF LETTUCE.  
A H Gold R Grogan R Bardin  
Phytopathology 53(10) 1139  
Oct 1963 464.8 p56  
Lettuce, Rattle disease (tobacco), Tobacco, Yellow spotting (lettuce).
- 6758-68  
THE RESPONSE TO TEMPERATURE OF CABBAGE VIRUS A INFECTION IN NICOTIANA GLUTINOSA.  
L C Gonzalez G S Pound  
Phytopathology 53(9) 1041-1045, BIBL., TABS., PL.  
Sep 1963 464.8 p56  
Cabbage, Nicotiana, Temperature, Virus A (cabbage).
- 6759-68  
FUNGI ATTACKING SEEDS IN DRY SEED-BEDS.  
D M Griffin  
Linna Soc New S Wales Proc 91 (1), 84-89 REF  
1966 514 SY2  
Aspergillus, Fungus diseases (plants), Penicillium, Seeds, Soils, Wheat.

- 6760-68  
SEED TRANSMISSION OF WHITE CLOVER MOSAIC AND CLOVER YELLOW MOSAIC VIRUSES IN RED CLOVER.  
R O Hampton  
Phytopathology 53(10) 1139  
Oct 1963 464.8 P56  
Clover, Mosaic (white clover), Seed-borne plant diseases, White clover, Yellow mosaic (clover).
- 6761-68  
RATE AND PATTERN OF PRUNE DWARF VIRUS MOVEMENT WITHIN INOCULATED CHERRY TREES.  
R O Hampton  
Phytopathology 53(9) 998-1002, BURL., TARS.  
Sep 1963 464.8 P56  
Cherries, Dwarf disease (prunus), Prunes.
- 6762-68  
SOME OBSERVATIONS OF PEANUT LEAF RUST AND CERCOSPORA LEAF SPOTS IN TEXAS.  
A L Harrison  
Plant Dis Rep 51 (8) 0 687-689  
Aug 1967 1.9 P69P  
Cercospora personata, Fungicides, Fungus diseases (plants), Leaf rust (peanuts), Leaf spot (peanuts), Peanuts, Puccinia arachidis.  
Puccinia leaf rust and Cercospora leaf spot diseases caused serious losses in peanuts in south Texas in many fields harvested from September to November in 1965 and 1966. early harvested peanuts were not seriously affected by leaf rust. several fungicides of the ones tested, including 325-mesh dusting sulfur, reduced the incidence of both leaf rust and leaf spots. sprays were more effective than dusts in the 1966 tests.
- 6763-68  
A VISIT TO M. W. BEIJERINCK AT HIS HOME LABORATORY IN DECEMBER, 1925.  
L S Heimbeck  
Phytopathology 53(7) 862  
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Antirrhinum, Bacteria, Plant diseases.
- 6764-68  
FIRST AND SECOND YEAR EFFECTS ON CYTOSPORA CANCKER DISEASE OF ITALIAN PRUNE TREES SPRAYED WITH FOUR CONCENTRATIONS OF CYCLOHEXIMIDE THIOSEMICARBAZONE.  
A W Belton W J Kochan  
Plant Dis Rep 51 (8) 0 655-658  
Aug 1967 1.9 P69P  
Canker (Prunus domestica), Cycloheximide thiosemicarbazone, Cytospora cincta, Dosage, Fungus diseases (plants), Prunes, Prunus domestica, Spraying.  
Three groups of Italian prune (Prunus domestica) trees in a commercial-orchard environment were spray-treated with 50, 200, 800, or 3200 ppm of cycloheximide thiosemicarbazone (CTS). in one case, 21-year-old trees with natural infections were treated only the first year. in another case, healthy 18-year-old trees were treated both years, with artificial infections being initiated before and after treatment in the spring of both years. in a third case, healthy 4-year-old trees were treated only the first year, with artificial infections being initiated in the spring of both years. the results indicate that 1) old infections can be suppressed satisfactorily only with relatively high concentrations (3200 ppm or more), 2) the effectiveness of lower concentrations in old trees can be improved by treating each year, 3) low concentrations are highly effective in young or old trees when applied prior to infection, and 4) these effects can be measured during the winter period following treatment, and during the second growing season, even when treatments are applied only during the first year.
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ABSORPTION, TOXICITY, AND BIO-ASSAY OF RIGR-POTENCY FUNGICIDES IN PRUNUS DOMESTICA.  
A W Belton A E Harvey  
Phytopathology 53(8) 895-898, BURL.  
Aug 1963 464.8 P56  
Cycloheximide, Mycostatin, Phytoactin, Phytostreptin, Prunes, Quinolinol benzoate, 8-, Quinolinol citrate, 8-, Quinolinol sulfate, 8-.
- 6766-68  
SUMMATION.  
T R Repting  
Phytopathology 53(10) 1135-1136  
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Roots, Symposia, Tree diseases.
- 6767-68  
MONOGENIC CHLOROTIC LESION RESISTANCE TO HELMINTHOSPORIUM TURCICUM IN CORN SEEDLINGS.  
H M Rilu A L Rooker  
Phytopathology 53(8) 909-912, BURL., TARS., PL.  
Aug 1963 464.8 P56  
Chlorosis (corn), Corn, Helminthosporium, Plant disease resistance.
- 6768-68  
PATHOGENICITY, VITAMIN NUTRITION, AND CULTURAL CHARACTERISTICS OF ISOLATES OF PHYTOPHTHORA PARASITICA FROM CARNATION AND OTHER HOSTS IN HAWAII.  
R R Rine M Aragaki  
Phytopathology 53(10) 1194-1197, BURL., TARS.  
Oct 1963 464.8 P56  
Dianthus caryophyllus, Hawaii, Nutrition, Pathogenicity, Phytophthora, Vitamins.
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INFLUENCE OF SOIL TEMPERATURE ON A CROWN ROT DISEASE OF PARSLEY CAUSED BY PHYTOPHTHORA PARASITICA.  
R R Rine M Aragaki  
Phytopathology 53(9) 1113-1114, BURL.  
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Crown rot (parsley), Parsley, Phytopathology, Phytophthora, Soil temperature.
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RECOVERY OF ASTER YELLOWS FROM EXCISED ORGANS OF INSECT VECTORS.  
R Hirumi K Maramorosch  
Phytopathology 53(7) 746  
Jul 1963 464.8 P56  
Aster yellows (callistephus chinensis), Gastrointestinal system, Insect vectors, Macrosteles fascifrons, Salivary glands (insects), Viscera.
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BLACK ROOT ROT OF PINE.  
C S Hodges Jr  
Phytopathology 53(10) 1132-1134, BURL.  
Oct 1963 464.8 P56  
Black root rot (pinus), Ethylene dibromide, Pinus.
- 6772-68  
A NEW CROWN ROT OF STRAWBERRY PLANTS CAUSED BY COLLETOTRICHUM FRAGARIAE.  
N L Rorn R G Carver  
Phytopathology 53(7) 768-770, PL.  
Jul 1963 464.8 P56  
Colletotrichum, Crown rot (strawberries), Methyl bromide, Strawberries.
- 6773-68  
FIELD DISEASE CYCLE OF PEPPERMINT RUST.  
C E Rorner  
Phytopathology 53(9) 1063-1067, BURL., PL.  
Sep 1963 464.8 P56  
Ribernation, Mentha piperita, Puccinia, Rust (mentha piperita), Teliospores.
- 6774-68  
RELATION OF THE IRIS BORER TO BACTERIAL SOFT ROT OF IRIS.  
C M Roward J G Leach  
Phytopathology 53(10) 1190-1193, BURL., PL.  
Oct 1963 464.8 P56  
Bacterial soft rot (iris), Erwinia, Iris, Macronoctua.
- 6775-68  
FUSARIUM WILT (RACE2) OF TOMATO EFFECT OF LIME AND MICRO-NUTRIENT SOIL AMENDMENTS ON DISEASE DEVELOPMENT.  
P J Jones S S Woltz  
Plant Dis Rep 51 (8) 0 645-648 REF  
Aug 1967 1.9 P69P  
Calcium hydroxide, Fungus diseases (plants), Manganese sulfate, Micronutrients, Plant nutritional deficiencies, Soil amendments, Tomatoes, Wilt (tomatoes), Zinc sulfate.  
Field soil (Leon fine sand) naturally infested with Fusarium oxysporum f. lycopersici race 2 was amended with hydrated lime, manganese sulfate, and zinc sulfate in two greenhouse pot tests. liming to a pH 8.0 0-8.3 greatly decreased the incidence and severity of Fusarium wilt of tomato (variety Manapal). the pathogen was isolated, however, from the stems of many of the plants grown in lime-amended



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DETECTION OF THE TOBACCO VEINAL NECROSIS STRAIN OF POTATO VIRUS Y IN SOLANUM CARDENASII AND S. ANDIGENUM INTRODUCED INTO THE UNITED STATES.  
R P Kahn R L Monroe  
Phytopathology 53(11) 1356-1359, BIBL. 1358-1359, PL.  
Nov 1963 464.8 P56  
Necrosis, Solanum, Tobacco, United States.
- 6777-68  
EFFECT OF BIOTIN ON GROWTH AND SPORULATION OF VERTICILLIUM ALBICATUM.  
W J Kaiser  
Phytopathology 53(10) 1139-1140  
Oct 1963 464.8 P56  
Biotin, Growth factors, Sporulation, Verticillium.
- 6778-68  
EFFECT OF THE SOIL CARBON NITROGEN RATIO ON SOIL FUNGI.  
D D Kaufman L E Williams  
Phytopathology 53(8) 956-960, BIBL., TABS.  
Aug 1963 464.8 P56  
Carbon, Chaetomium, Humicola, Masoniella, Nitrogen, Soil fungi, Soils, Styxanus, Wheat straw.
- 6779-68  
CONTROL OF BOTRYTIS NECK ROT OF ONIONS BY FUNGICIDAL DUSTS AND DESICCANT CHEMICALS.  
J Kaufman J W Lorbeer  
Plant Dis Rep 51 (8) 696-699  
Aug 1967 1.9 P69P  
Botran, Botrytis allii, Calcium chloride, Captan, Chemical control (plant diseases), Defoliants, Dichloro-4-nitroaniline, 2,6-, Dusting, Fungicides, Fungus diseases (plants), Neck rot (onions), Onions, Thiram. Supported in part by Orange County Vegetable Improvement Cooperative Association, Middleton, and Campbell Soup Company, Camden.  
Certain fungicidal dusts and desiccant chemicals applied on the neck wounds of freshly harvested New York-grown Downing Yellow Globe onion bulbs, artificially inoculated with Botrytis allii, significantly reduced Botrytis neck rot after 4 to 5 months common storage. 2,6-Dichloro-4-nitroaniline and calcium chloride were most effective materials in reducing total decay of onions during the 1964-65 season. captan and two other fungicides greatly reduced Botrytis neck rot and total decay during 1965-66. two experimental fungicides reduced Botrytis neck rot to very low levels during 1966-67.
- 6780-68  
STUDIES ON THE NATURE OF BARLEY RESISTANCE TO HELMINTHOSPORIUM TERES.  
B L Keeling  
Diss Abstr Sect B 27 (12,PT.1), 4208B-4209B  
Jun 1967 Z5055.U49D53  
Barley, Helminthosporium teres, Net blotch (barley), Plant disease resistance, Plant growth inhibitors.
- 6781-68  
INFECTION OF SEEDLING COTTON HYPOCOTYL BY AN ISOLATE RHIZOCTONIA SOLANI.  
B B Khadga J B Sinclair B B Exner  
Phytopathology 53(11) 1331-1336, BIBL. 1335-1336, PL.  
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Cotton, Hypocotyls, Rhizoctonia, Seedlings.
- 6782-68  
INDUCED SUSCEPTIBILITY IN SOYBEAN PLANTS GENETICALLY RESISTANT TO PHYTOPHTHORA SOJAE.  
W J Klarman J W Gerdemann  
Phytopathology 53(7) 863-864, PL.  
Jul 1963 464.8 P56  
Phytophthora, Plant disease resistance, Soybeans.
- 6783-68  
RESISTANCE OF SOYBEANS TO THREE PHYTOPHTHORA SPECIES DUE TO THE PRODUCTION OF A PHYTOALEXIN.  
W L Klarman J W Gerdemann  
Phytopathology 53(11) 1317-1320, BIBL., TABS.  
Nov 1963 464.8 P56  
Phytoalexin, Phytophthora, Plant disease resistance, Soybeans.
- 6784-68  
NATURE OF RESISTANCE OF SOYBEANS TO THREE PHYTOPHTHORA SPECIES.  
W L Klarman J W Gerdemann  
Phytopathology 53(7) 747  
Jul 1963 464.8 P56
- Phytophthora, Plant disease resistance, Soybeans.
- 6785-68  
WILT-INCITANT FUSARIUM OXYSPORUM F. CARTHAMI PRESENT IN SEED FROM INFECTED SAFFLOWER.  
J M Klisiewicz  
Phytopathology 53(9) 1046-1049, BIBL., PL.  
Sep 1963 464.8 P56  
Fusarium, Safflower, Seed-borne plant diseases, Seeds, Wilt (safflower).
- 6786-68  
CANCROID SPOT OF CITRUS.  
L C Knorr  
Phytopathology 53(12) 1415-1418, BIBL., PL.  
Dec 1963 464.8 P56  
Cancroid spot (citrus), Citrus, Fungus diseases (plants).
- 6787-68  
MECHANISM OF SOIL FUNGISTASIS.  
W H Ko  
Diss Abstr Sect B 27 (12,PT.1), 4209B  
Jun 1967 Z5055.U49D53  
Fungicides, Plant nutrition, Soil fungi, Soil microorganisms.
- 6788-68  
CONTROL OF DOWNY MILDEW OF OPIUM POPPY BY ROOT APPLICATION OF FUNGICIDES.  
K L Kothari A C Verma  
Plant Dis Rep 51 (8) 686-687  
Aug 1967 1.9 P69P  
Downy mildew (Papaver), Fungicides, Fungus diseases (plants), Papaver, Peronospora arborescens, Pesticide application, Plant disease control, Roots, Thiocarbamates.
- 6789-68  
INFECTING SEVEN-DAY-OLD ALFALFA SEEDLINGS WITH WILT BACTERIA THROUGH WOUNDED COTYLEDONS.  
K W Kreitlow  
Phytopathology 53(7) 800-803, PL.  
Jul 1963 464.8 P56  
Alfalfa, Bacterial wilt (alfalfa), Corynebacterium, Plant injuries, Seedlings.
- 6790-68  
A PHYSIOGENIC LEAF AND STEM SPOT OF SOME FORAGE LEGUMES.  
K W Kreitlow R A Kilpatrick  
Plant Dis Rep 51(8) 6619-6622  
Aug 1967 1.9 P69P  
Alfalfa, Birdsfoot trefoil, Leaf spot (alfalfa), Leaf spot (birdsfoot trefoil), Leaf spot (red clover), Leaf spot (vetch), Red clover, Vetch.  
New Hampshire Agricultural Experiment Station, Durham, cooperating.  
Some lines of alfalfa and red clover are affected by a physiogenic leaf and stem spot that resembles symptoms incited by Leptosphaerulina trifolii. similar symptoms were observed on birdsfoot trefoil and possibly earlier on common vetch. the spotting is transient and fails to develop when plants are grown at temperatures above 28 degrees centigrade or when light intensity is low.
- 6791-68  
ON THE FUNGISTATIC AND FUNGICIDAL PROPERTIES OF AN ANTI-BIOTIC PRODUCED BY PENICILLIUM RUBRUM.  
M M Krstic  
Plant Dis Rep 51 (8) 669-671  
Aug 1967 1.9 P69P  
Antibiotics, Fungicides, Fungus diseases (plants), Penicillium rubrum.
- 6792-68  
AN EVALUATION OF SOLANUM NIGRUM AND PHYSALIS MINIMA AS SUSCEPTS OF XANTHOMONAS VESICATORIA.  
C A Laub R E Stall  
Plant Dis Rep 51 (8) 659-661  
Aug 1967 1.9 P69P  
Bacterial diseases (plants), Bacterial spot (Physalis minima), Bacterial spot (Solanum nigrum), Physalis minima, Plant disease resistance, Solanum nigrum, Weeds, Xanthomonas vesicatoria.  
Plants of nightshade and ground cherry were resistant to Xanthomonas vesicatoria. resistance in both species was similar to the hypersensitive resistance of a pepper line descended from PI 163192. X vesicatoria was isolated from the resistant plants 35 days after inoculation of low levels of bacteria even though no macroscopic symptoms were noted.

this is evidence that the bacterial spot microorganism can survive as a resident in the resistant plants and as such might possibly survive the intercrop period in Florida.

6793-68

A RINGSPOT VIRUS FROM DAHLIA.  
R R Lawson J A Milbrath  
Phytopathology 53(10) 1140  
Oct 1963 464.8 P56  
Dahlia, Ring spot (dahlia).

6794-68

TRE RESISTANCE OF ZEA MAYS TO PUCCINIA GRAMINIS.  
K T Leath  
Diss Abstr Sect R 27 (12,PT.1), 4209R-4210B  
Jun 1967 Z5055.U49D53  
Corn, Grasses, Rust indexing (plants),  
Plant disease resistance, Puccinia graminis,  
Puccinia sorghi.

6795-68

FORMATION OF HYDROGEN CYANIDE BY THE MYCELIAL STAGE OF A FAIRY RING FUNGUS.  
J B Lebeau E J Rawn  
Phytopathology 53(12) 1395-1396, BIBL.  
Dec 1963 464.8 P56  
Golf courses, Hydrocyanic acid, Lawns, Marasmius oreades, Mycelium, Parks, Pastures.

6796-68

MULTIPLICATION OF XANTHOMONAS VESICATORIA ON TOMATO SEEDLINGS.  
C Leben  
Phytopathology 53(7) 778-781  
Jul 1963 464.8 P56  
Bacteriology, Cultural control (plant diseases), Mucor, Reproduction, Seedlings, Spotted wilt (tomatoes), Tomatoes, Xanthomonas.

6797-68

DISINFECTION OF TOMATO SEED INFESTED WITH XANTHOMONAS VESICATORIA.  
G Libman R E Webb  
Phytopathology 53(7) 747  
Jul 1963 464.8 P56  
Antibiotics, Antiseptics, Chemical control (plant diseases), Fungicides, Hexachlorophene, Seed treatment, Seeds, Tomatoes.

6798-68

RELATIONSHIPS OF VIRUSES ASSOCIATED WITH RINGSPOT DISEASES OF BLUEBERRY.  
R M Lister L C Raniere E R Varney  
Phytopathology 53(9) 1031-1035, BIBL., PL.  
Sep 1963 464.8 P56  
Blueberries, Necrotic ring spot (blueberries), Ring spot (tobacco), Xiphinema.

6799-68

FUNGITOXICITY OF STERILIZED SOIL INOCULATED WITH SOIL MICRORHIZOA.  
J L Lockwood B T Lingappa  
Phytopathology 53(8) 917-920, BIBL.  
Aug 1963 464.8 P56  
Glomerella, Soil fungi, Soil sterilization.

6800-68

INSTABILITY OF SYMPTOMS OF POTATO LEAF ROLL VIRUS.  
H R MacCarthy  
Phytopathology 53(10) 1161-1163, BIBL., TABS.  
Oct 1963 464.8 P56  
Insect vectors, Leaf roll (potatoes), Myzus, Potatoes.

6801-68

CHEMOTHERAPY OF THE APPLE SCAB DISEASE WITH BUTYRIC ACID DERIVATIVES.  
D H MacIennan J Kuc E B Williams  
Phytopathology 53(11) 1261-1266, BIBL., TABS., PL.  
Nov 1963 464.8 P56  
Apples, Butyric acid, Drug therapy, Scab (apples), Venturia.

6802-68

PHYSIOLOGICAL FACTORS INVOLVED IN TUMOR PRODUCTION BY THE OLEANDER KNIGHT PATHOGEN, PSEUDOMONAS SAVASTANOI.  
A R Magie E E Wilson  
Phytopathology 53(10) 1140  
Oct 1963 464.8 P56  
Crown galls, Nerium, Pseudomonas.

6803-68

VECTORS OF ALFALFA AND BEAN YELLOW MOSAIC VIRUSES IN LADINO WHITE CLOVER.  
G R Manglitz K W Kreitlow  
J Econ Entomol 53(1) 113-115, BIBL., TABS.  
Feb 1960 421 J822  
Aceratagallia, Alfalfa, Anuraphis, Derocerus, Empoasca, Ladino clover, Macrosiphum, Mosaic (bean yellow), Myzus, Rhopalosiphum, Tetranychus, Therioaphis.

6804-68

FACTORS AFFECTING GROWTH, SPORULATION, PATHOGENICITY, AND DISSEMINATION OF LEPTOSPHAERULINA BRISIANA.  
E S Martinez E W Ranson  
Phytopathology 53(8) 938-945, BIBL., TABS., PL.  
Aug 1963 464.8 P56  
Alfalfa, Growth factors, Leaf spot (alfalfa), Leptosphaerulina, Sporulation.

6805-68

EFFECT OF SMDC ON GERMINATION, PLANT GROWTH, AND FUSARIUM WILT INCIDENCE OF CUMIN (CUMINUM CYMINUM).  
B L Mathur R L Mathur  
Plant Dis Rep 51 (8) 629-631  
Aug 1967 1.9 P69P  
Cuminum cyminum, Fungus diseases (plants), Fusarium oxysporum, Plant physiology, Seed germination, SMDC, Thiocarbamates, Wilt (Cuminum cyminum).  
Addition of SMDC and its 50 percent solution to soil 20 days before sowing resulted in increased seedling emergence, better plant growth, and reduction in wilt Fusarium oxysporum cumini, incidence in cumin. In SMDC-TREATED soil there were relatively few fungal species and the population of Fusarium oxysporum, as well as of total fungi, was greatly reduced.

6806-68

VARIETAL RESPONSE IN GROUNDNUT TO SCLEROTIUM BATATICOLA.  
S B Mathur A Singh L M Joshi  
Plant Dis Rep 51 (8) 649-651  
Aug 1967 1.9 P69P  
Crop varieties, Fungus diseases (plants), Peanuts, Sclerotium bataticola.  
Sclerotium bataticola caused severe damage in two varieties of groundnut out of four tested under field conditions. seventy-two percent mortality was observed in variety TMV 2 and 65 percent in Spanish Improved Punjab 1. TMV 3 varieties suffered only 13 and 4 percent losses, respectively. the latter two varieties are late-maturing and spreading types while the former ones mature early and possess a bunched habit. the residual yields of Punjab 1 and soil although these plants did not develop vascular browning TMV 3 per hectare were very much higher than yields for the symptoms. the Mn and Zn soil amendment results were variable and inconclusive.  
other two susceptible varieties. Punjab 1 and TMV 3 appeared to be fairly tolerant to root rot caused by S bataticola under Delhi conditions.

6807-68

CHITIN-LIGNIN AMENDMENTS FOR CONTROL OF BEAN ROOT ROT.  
C L Maurer R Baker  
Phytopathology 53(8) 882  
Aug 1963 464.8 P56  
Beans, Chitin, Lignin, Root rot (beans).

6808-68

MYCELIAL PROTEIN COMPARISONS OF ISOLATES OF CUCURBIT ANTHRACNOSE FUNGI.  
C L McCombs N N Winstead  
Phytopathology 53(8) 882  
Aug 1963 464.8 P56  
Anthracnose (cucurbita), Colletotrichum, Fungi, Glomerella, Mycelium, Proteins.

6809-68

BETTEROTALLISM IN PYRENOPHORA TERES.  
W C McDonald  
Phytopathology 53(7) 771-773, PL.  
Jul 1963 464.8 P56  
Barley, Cultural control (plant diseases), Culture media, Grasses, Mycology, Pathogenicity, Plant genetics, Plant morphology, Plant reproduction, Pyrenophora.

6810-68

PHYTOPATHOLOGICAL NOTES.  
INDUCING INFECTION OF PEAR ROOTLETS BY PHYTOPHTHORA CACTORUM IN POT TESTS.  
D L McIntosh R J O Reilly  
Phytopathology 53(12) 1447, BIBL.



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- Dec 1963 464.8 P56  
Pears, *Phytophthora*, Roots.
- 6811-68  
INOCULATION AND RUST DEVELOPMENT ON PEANUTS GROWN IN THE GREENHOUSE.  
D V McVey F A Jimenez  
Phytopathology 53(8) 882  
Aug 1963 464.8 P56  
Greenhouse culture, Immunization, Peanuts, Puccinia.
- 6812-68  
GREENEUG DISPERSAL AND DISTRIBUTION OF BARLEY YELLOW DWARF VIRUS IN WISCONSIN.  
J T Medler P W Smith  
J Econ Entomol 53(3) 473-474, BIBL.  
Jun 1960 421 J822  
Oats, Population statistics, Toxoptera, Yellow dwarf (barley).
- 6813-68  
METABOLISM OF RESISTANT AND SUSCEPTIBLE CUCUMBER VARIETIES INFECTED WITH CUCUMBER MOSAIC VIRUS.  
G H Menke J C Walker  
Phytopathology 53(11) 1349-1355, BIBL.  
Nov 1963 464.8 P56  
Cucumbers, Leaves, Metabolism, Mosaic (cucumbers), Plant disease resistance.
- 6814-68  
PHYSIOLOGY OF RHIZOPUS INFECTION ON CARROT.  
G H Menke  
Phytopathology 53(8) 882  
Aug 1963 464.8 P56  
Carrots, Plant physiology, Rhizopus.
- 6815-68  
RESPONSE OF PLANTS TO AIR POLLUTANTS. II. EFFECTS OF OZONE CONCENTRATION AND LEAF MATURITY ON INJURY TO NICOTIANA TABACUM.  
H A Menser H E Heggstad O E Street  
Phytopathology 53(11) 1304-1308, BIBL., PL.  
Nov 1963 464.8 P56  
Air pollution, Leaves, Ozone, Tobacco, Weather fleck (tobacco).
- 6816-68  
THE UTILIZATION OF LIGNO-CELLULOSE BY COMMON MOLD FUNGI.  
W Merrill D W French  
Phytopathology 53(8) 882  
Aug 1963 464.8 P56  
Fungi, Lignocellulose, Molds, Populus.
- 6817-68  
AN INVESTIGATION OF THERMAL INACTIVATION OF ALFALFA MOSAIC VIRUS.  
J A Milbrath  
Phytopathology 53(9) 1036-1040, BIBL., TABS.  
Sep 1963 464.8 P56  
Alfalfa, Heat, Mosaic (alfalfa).
- 6818-68  
VARIABILITY IN RATES OF MOVEMENT OF DIFFERENT STRAINS OF THE VIRUS RESPONSIBLE FOR PRUNE DWARF.  
J A Milbrath  
Phytopathology 53(9) 1106-1108, BIBL., PL.  
Sep 1963 464.8 P56  
Cherries, Dwarf disease (prunus), Prunes, Prunus mahaleb, Yellow (cherries).
- 6819-68  
OZONE INJURY TO THE FOLIAGE OF PINUS PONDEROSA.  
P R Miller J R Farneter Jr O C Taylor E A Cardiff  
Phytopathology 53(9) 1072-1076, BIBL. 1075-1076, PL.  
Sep 1963 464.8 P56  
Leaves, Ozone, Pinus, Smog.
- 6820-68  
SOME BIOCHEMICAL CHANGES ASSOCIATED WITH VIRUS INFECTION IN APPLE.  
D F Millikan  
Phytopathology 53(8) 883  
Aug 1963 464.8 P56  
Apples, Biochemistry, Virus diseases (plants).
- 6821-68  
PROPERTIES OF TULARE APPLE MOSAIC VIRUS.  
G I Mink J B Bancroft M J Nadakavukaren  
Phytopathology 53(8) 973-978, BIBL. 977-978, TABS., PL.  
Aug 1963 464.8 P56  
Apples, N-butanol, Tulare mosaic (apples).
- 6822-68  
ADDITION OF FUNGAL CELL-WALL COMPONENTS TO SOIL FOR BIOLOGICAL DISEASE CONTROL.  
R Mitchell  
Phytopathology 53(9) 1068-1071, BIBL., PL.  
Sep 1963 464.8 P56  
Agrobacterium, Biological control (diseases), Cells, Chitin, Fusarium, Laminarin, Pythium, Soil sterilization, Soil-borne plant diseases.
- 6823-68  
PLANT INTRODUCTION SOUR CHERRY SELECTIONS - PROBABLE SOURCES OF BROWN ROT RESISTANCE.  
J D Moore R D Berger A V Ravenscroft  
Phytopathology 53(8) 883  
Aug 1963 464.8 P56  
Brown rot (cherries), Cherries, Monilinia, Plant introduction.
- 6824-68  
POTENTILLA SPECIES AS HOSTS FOR PHYTOPHTHORA FRAGARIAE.  
J N Moore D H Scott R H Converse  
Phytopathology 53(8) 883  
Aug 1963 464.8 P56  
Greenhouse culture, Phytophthora, Potentilla.
- 6825-68  
CALCIUM NUTRITION IN RELATION TO THE BLACK SHANK DISEASE OF TOBACCO.  
L D Moore W M Wills  
Plant Dis Rep 51 (8) 641-644  
Aug 1967 1.9 P69P  
Black shank (tobacco), Calcium, Fungus diseases (plants), Phytophthora parasitica nicotianae, Plant disease resistance, Plant nutritional deficiencies, Tobacco.  
The effect of calcium supplied in modified Hoagland's solution on susceptibility of tobacco to *Phytophthora parasitica* var. *nicotianae* was investigated in a series of experiments. When black shank resistant and susceptible tobacco was grown in solution culture in the greenhouse at several calcium levels, less than 5 percent of the plants were diseased at 20 ppm supplied calcium in contrast to 85 to 100 percent diseased at 100 ppm or higher calcium. The effect was dependent upon the amount of calcium supplied in the nutrient solution at the time of inoculation and was independent of prior nutrition. The effect was apparently independent of pH of the growth medium.
- 6826-68  
POTATO YELLOW VEIN VIRUS IN EQUADOR.  
J D Moreno  
Phytopathology 53(8) 883-884  
Aug 1963 464.8 P56  
Equador, Potatoes.
- 6827-68  
INFECTION INHIBITION AND GERM-TUBE LYSIS OF THREE CEREAL RUSTS BY *BACILLUS PUMILUS*.  
F L Morgan  
Phytopathology 53(11) 1346-1348, BIBL.  
Nov 1963 464.8 P56  
Bacillus, Grain, Lysis, Puccinia, Rust (grain).
- 6828-68  
RELATIONSHIP OF GENES CONDITIONING PATHOGENICITY OF ERYSIPIHE GRAMINIS F. SP. HORDEI ON BARLEY.  
J G Moseman  
Phytopathology 53(11) 1326-1330, BIBL. 1329-1330, TABS.  
Nov 1963 464.8 P56  
Barley, Erysiphe, Genes, Pathogenicity.
- 6829-68  
HAIRY ROOT (*AGROBACTERIUM RHIZOGENES*) OF FIELD ROSES.  
D E Munnecke P A Chandler M P Starr  
Phytopathology 53(7) 788-799, BIBL., TABS., PL.  
Jul 1963 464.8 P56  
Agrobacterium, Bactericides, Chemical control (plant diseases), Dichloropropane dichloropropene mixture, Hairy root (rosa), Nematocides, Nematode vectors, Rosa, Sanitation control (pests), Sodium hypochlorite.
- 6830-68  
STUDIES ON TOBACCO MOSAIC VIRUS (TMV) INFECTION OF SUSPENDED CALLUS CELLS.  
H H Murakishi  
Phytopathology 53(8) 884

- Aug 1963 464.8 P56  
Mosaic (tobacco), Tobacco.
- 6831-68  
CERATOCYSTIS FAGACEARUM IN ROOTS OF INFECTED BUR OAKS AND THE RECURRENCE AND SPREAD OF OAK WILT.  
V M G Nair J E Kuntz  
Phytopathology 53(8) 884  
Aug 1963 464.8 P56  
Ceratocystis, Quercus, Roots, Wilt (quercus).
- 6832-68  
EFFECTS OF USTILAGO AVENAE ON GROWTH OF TWO OAT VARIETIES.  
A Narain B H Luke  
Phytopathology 53(11) 1363-1364, BIBL. 1363-1364  
Nov 1963 464.8 P56  
Growth factors, Oats, Ustilago.
- 6833-68  
PERSISTENCE OF CORYNEBACTERIUM INSIDIOSUM IN SOIL.  
G A Nelson G Semenik  
Phytopathology 53(10) 1167-1169, BIBL.  
Oct 1963 464.8 P56  
Alfalfa, Bacterial wilt (alfalfa), Corynebacterium, Soils.
- 6834-68  
CHARACTERISTICS OF AN UNIDENTIFIED VIRUS FROM CUCURBITS.  
M R Nelson J C Matejka  
Phytopathology 53(10) 1140-1141  
Oct 1963 464.8 P56  
Cantaloupes, Cucurbits.
- 6835-68  
EFFECTS OF GEOGRAPHIC ISOLATION AND HOST ASSOCIATION ON THE EVOLUTION OF SEXUALITY IN HELMINTHOSPORIUM.  
R R Nelson D M Kline R Wilson  
Phytopathology 53(8) 884  
Aug 1963 464.8 P56  
Fertility, Geography, Helminthosporium, Metamorphosis, Sex.
- 6836-68  
RED LEAF DISORDERS OF PEAR IN CALIFORNIA AND THEIR RELATION TO PEAR DECLINE.  
C W Nichols A A Millecan S M Gotan  
Phytopathology 53(8) 884  
Aug 1963 464.8 P56  
California, Leaves, Pears, Red leaf disease (pears).
- 6837-68  
SYMPTOMLESS HOSTS OF THE POTATO SPINDLE TUBER VIRUS (PSTV). \*  
M J C Brien W B Raymer  
Phytopathology 53(8) 884  
Aug 1963 464.8 P56  
Petunia, Physalis, Potatoes, Spindle tuber (potatoes), Tomatoes.
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EFFECTS OF 2,6-DICHLORO-4-NITROANILINE ON RHIZOPUS SPECIES AND ITS COMPARISON WITH OTHER FUNGICIDES ON CONTROL OF RHIZOPUS ROT OF PEACHES.  
J M Ogawa J H Mathre D J Weber S D Lyda  
Phytopathology 53(8) 950-955, BIBL., PL.  
Aug 1963 464.8 P56  
Botran, Captan, Dichloro-4-nitroaniline, 2,6-, Orthocide, Peaches, Phaltan, Rhizopus, Rot (peaches).
- 6839-68  
VARIATIONS IN TOLERANCE OF RHIZOPUS SPECIES TO 2,6-DICHLORO-4-NITROANILINE.  
T M Ogawa T H Mathre  
Phytopathology 53(10) 1141  
Oct 1963 464.8 P56  
Dichloro-4-nitroaniline, 2,6-, Fruit, Rhizopus.
- 6840-68  
RELATION OF DECOMPOSING PLANT RESIDUES TO ROOT GROWTH OF ALFALFA.  
J H Ohman T Kommedahl  
Phytopathology 53(8) 884-885  
Aug 1963 464.8 P56  
Alfalfa, Decomposition, Growth factors, Plant residues, Roots.
- 6841-68  
A TOXIC METABOLITE FROM ASCOCHYTA FABAE HAVING ANTIBIOTIC ACTIVITY.  
R Oku T Nakanishi  
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Antibiotics, Ascochyta, Broadbeans, Brown spot (broadbeans), Cochliobolus, Metabolites.
- 6842-68  
FUNGISTATIC EFFECTS OF A SOIL BACTERIUM ON CONIDIA AND HYPHAE OF HELMINTHOSPORIUM SATIVUM.  
K M Old  
Phytopathology 53(8) 885  
Aug 1963 464.8 P56  
Conidia, Fungicides, Helminthosporium, Hyphae, Soil bacteria.
- 6843-68  
STUDIES ON A VIRUS CAUSING STEM GROOVING AND GRAFT-UNION ABNORMALITIES IN VIRGINIA CRAB APPLE.  
O Omar De Sequeira  
Ann Appl Biol 60 (1), 59-66 REF  
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Abnormalities, Chenopodium quinoa, Crabapples, Plant grafting, Virus diseases (plants).
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ELECTRON MICROSCOPY OF TOBACCO RATTLE TYPE VIRUSES.  
ALLEN JR, T L.  
Phytopathology 53(10) 1137  
Oct 1963 464.8 P56  
Corky ringspot (tobacco), Electron microscopy, Rattle disease (tobacco), Tobacco.
- 6845-68  
REAPPRAISAL OF TRANSMISSION OF TOBACCO MOSAIC VIRUS BY INSECTS.  
G B Orlob  
Phytopathology 53(7) 822-830, BIBL. 829-830, TABS., PL.  
Jul 1963 464.8 P56  
Epitrix, Insect vectors, Lygus, Lygus lineolaris, Macrosiphum, Macrosiphum euphorbiae, Mosaic (tobacco), Plant disease transmission, Tobacco.
- 6846-68  
EFFECT OF ROOTSTOCK ON THE INCIDENCE OF IMPIETRATURA-DISEASED GRAPEFRUIT FRUITS.  
A Papasolomontos C V Economides  
Plant Dis Rep 51(8) 684-686  
Aug 1967 1.9 P69P  
Citrus, Grapefruit, Impietratura (citrus), Impietratura (grapefruit), Plant disease resistance, Virus diseases (plants).  
The effect of different rootstocks on the susceptibility of the grapefruit scion to impietratura citrus virus was studied in a rootstock trial which began in 1961 and trees of which were cropped for the first time in 1964. the results to date indicate that impietratura-infected scions growing on Morton and Troyer citrange, Cleopatra mandarin, Palestine sweet lime, and sour orange are about equally susceptible. grapefruit scions growing on rough lemon have, however, consistently produced a higher percentage of diseased fruit than any of the above. in this trial, susceptibility was measured by the percentage of diseased fruit borne on each infected tree.
- 6847-68  
MICROBIAL ANTAGONISM IN BEAN RHIZOSPHERE AS AFFECTED BY OAT STRAW AND SUPPLEMENTAL NITROGEN.  
G C Papavizas  
Phytopathology 53(12) 1430-1435, BIBL., TABS., PL.  
Dec 1963 464.8 P56  
Beans, Nitrogen, Oat straw, Rhizosphere.
- 6848-68  
EFFECTS OF OAT STRAW AND SUPPLEMENTAL NITROGEN ON MICROBIAL ANTAGONISM IN BEAN RHIZOSPHERE.  
G C Papavizas  
Phytopathology 53(8) 885  
Aug 1963 464.8 P56  
Beans, Microorganisms, Nitrogen, Oat straw, Rhizosphere.
- 6849-68  
RELATIONSHIP OF WATER CONTENT AND LIVING CELLS TO SPREAD OF DIPLODIA ZEAE IN CORN STALKS.  
A J Pappelis F G Smith  
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Sep 1963 464.8 P56  
Cells, Corn, Diplodia, Pith, Water.
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SOME CHARACTERISTICS OF DWARF MISTLETOE POPULATIONS ON RED FIR.  
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P N Patel J C Walker  
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Aug 1963 464.8 P56  
Amides, Amino acids, Bald blight (oats), Oats, Tobacco, Wildfire (tobacco).
- 6852-68  
A SOIL-BORNE VIRUS DISEASE OF PEPPER IN CALIFORNIA.  
A O Paulus I J Thomason L B Weathers  
Phytopathology 53(8) 885-886  
Aug 1963 464.8 P56  
California, *Piper nigrum*, Redpeppers (vegetable), Soil-borne plant diseases.
- 6853-68  
PATHOLOGICAL ANATOMY OF WALNUT BRANCHES INFECTED BY *BENDERSCNULIA TORULCIDEA*.  
T Paxton  
Phytopathology 53(10) 1141  
Oct 1963 464.8 P56  
Bendersonula, Juglans.
- 6854-68  
SURVIVAL OF *XANTHOMONAS VESICATORIA* IN SOIL AND DISEASED TOMATO PLANTS.  
G B Petersen  
Phytopathology 53(7) 765-767  
Jul 1963 464.8 P56  
Bacterial spot (tomatoes), Bionation, Tomatoes, *Xanthomonas*.
- 6855-68  
CONTROL OF CYLINDROSPORIUM LEAF SPOT DISEASE OF RHUS TRILOBATA AND *SHEPHERDIA ARGENTEA* SEEDLINGS.  
G W Peterson  
Plant Dis Rep 51 (8) 0 700-701  
Aug 1967 1.9 P69P  
Bordeaux mixture, Captan, Chemical control (plant diseases), *Cylindrosporium*, Fungicides, Fungus diseases (plants), Leaf spot (*Rhus trilobata*), Leaf spot (*Shepherdia argentea*), Maneb, *Rhus trilobata*, *Shepherdia argentea*, Windbreaks.
- 6856-68  
RELATIONSHIP OF THE GENES CONDITIONING RESISTANCE TO *ERYSIPHE GRAMINIS* F. SP. *BORDEI* IN SOME VARIETIES OF BARLEY USED TO DIFFERENTIATE RACES OF THIS PATHOGEN.  
C R Pineda  
Diss Abstr Sect B 27 (12, Pt. 1), 4214B  
Jun 1967 Z5055.049D53  
Barley, Crop varieties, *Erysiphe graminis hordei*, Genes, Plant disease resistance.
- 6857-68  
ENZYMES FROM CONIDIA AND MATRIX OF *COLLETOTRICHUM ORBICULARE* GROWN ON A NATURAL MEDIUM.  
F M Porter  
Phytopathology 53(8) 886  
Aug 1963 464.8 P56  
Colletotrichum, Conidia, Culture media, Enzymes, Matrices.
- 6858-68  
RECOGNITION OF *PHYMATOTRICHUM* ROOT ROT OF COTTON AND ALFALFA IN AN AERIAL SURVEY.  
R M Pratt G F Snow T R Carpenter  
Phytopathology 53(10) 1141  
Oct 1963 464.8 P56  
Alfalfa, Cotton, *Phymatotrichum*, Root rot (cotton).
- 6859-68  
BREAKDOWN OF MO MO RESISTANCE IN *PISUM SATIVUM* BY THERMAL SELECTION WITHIN CERTAIN STRAINS OF THE BEAN YELLOW MOSAIC VIRUS (EV2).  
R Provvidenti W T Schroeder  
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Mo mo genotype, Plant disease resistance, Plant temperature, Yellow mosaic (beans).
- 6860-68  
POSTINFECTION DEVELOPMENT OF WHEAT BUNT IN RELATION TO CONTROLLED SOIL MOISTURE.  
L B Purdy  
Phytopathology 53(8) 985-986, BIBL.  
Aug 1963 464.8 P56
- Soil moisture, Stinking smut (wheat), Wheat.
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THREE DISTINCT PATHOGENIC TYPES OF STRIPE RUST IN THE WESTERN STATES.  
L H Purdy R E Allan  
Phytopathology 53(8) 886  
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Puccinia, Stripe rust (wheat), Wheat.
- 6862-68  
TIME OF YEAR OF INFECTION OF WINTER WHEAT BY THE DWARF BUNT FUNGUS.  
L H Purdy J A Hoffmann J P Meiners V R Stewart  
Phytopathology 53(12) 1419-1421, BIBL.  
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Dwarf bunt (wheat), Hexachlorobenzene, Stinking smut (wheat), Weather, Wheat.
- 6863-68  
BACTERIAL WILT OF BIRD-OF-PARADISE CAUSED BY *PSEUDOMONAS SOLANACEARUM*.  
V L Quinon M Aragaki  
Phytopathology 53(9) 1115-1116, BIBL., PL.  
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Bacterial wilt (strelitzia), *Pseudomonas*, *Strelitzia*.
- 6864-68  
ANTIBIOTIC PRODUCTION BY *STREPTOMYCES* SP. IN CORN RHIZOSPHERE.  
G Rangaswami P Vidyasekaran  
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Antibiotics, Corn, *Belminthosporium*, Rhizosphere, *Streptomyces*.
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DIFFERENTIATION OF VIRUSES TRANSMITTED FROM PELARGONIUM BORTORUM.  
R A Reinert A C Bildebrandt G E Beck  
Phytopathology 53(11) 1292-1298, BIBL. 1297-1298, TABS., PL.  
Nov 1963 464.8 P56  
Geranium, Pelargonium, Plant disease transmission, Virus diseases (plants).
- 6866-68  
SPRING BLACK STEM OF ALFALFA IN RELATION TO TEMPERATURE, MOISTURE, WOUNDING, AND NUTRIENTS AND SOME OBSERVATIONS ON PATHOGEN DISSEMINATION.  
B L Renfro R D Wilcoxson  
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Alfalfa, Nutrient solutions (plants), Phytophthora, Spring black stem (alfalfa), Temperature.
- 6867-68  
MOVEMENT OF TOBACCO NECROSIS VIRUS IN SYSTEMICALLY INFECTED SOYBEANS.  
E C Resconich  
Phytopathology 53(8) 913-916, BIBL., PL.  
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Necrosis, Soybeans, Tobacco.
- 6868-68  
THE EFFECT OF DAPPLE APPLE AND STEM PITTING ON APPLE TREE GROWTH AND YIELDS IN NEW HAMPSHIRE OVER A FOURTEEN-YEAR PERIOD.  
A E Rich  
Phytopathology 53(8) 886  
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Apples, Crop yields, Dapple (apples), Growth factors, New Hampshire, Stem pitting (apples).
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INOCULUM POTENTIAL AND EFFECTIVE FUNGICIDE DOSAGE IN SOIL.  
L T Richardson D E Munnecke  
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Oct 1963 464.8 P56  
Pythium, Soils, Thiram.
- 6870-68  
STEMPHYLLIUM LEAFSPOT OF SAFFLOWER.  
D A Roberts A S Muller G B Killinger  
Phytopathology 53(8) 886  
Aug 1963 464.8 P56  
Leaf spot (safflowers), Safflower, *Stemphyllium*.



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AUTUMN AND WINTER SPORULATION BY BASIDIOMYCOTES OF FOMES  
ANNOSUS.  
T D Rogers  
Phytopathology 53(10) 1141-1142  
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Basidiomycetes, Fomes, Sporulation, Weather.
- 6872-68  
PURIFICATION, MORPHOLOGY, AND BIOCHEMICAL CHARACTERIZATION  
OF THE WISCONSIN PEA STREAK VIRUS.  
E E Rosencranz D J Hagedorn  
Phytopathology 53(8) 887  
Aug 1963 464.8 P56  
Biochemistry, Morphology, Peas, Purification, Streak (peas),  
Wisconsin.
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INTERACTION OF THE SOYBEAN MOSAIC AND BEAN POD MOTTLE VIRUS-  
ES INFECTING SOYBEANS.  
J P Ross  
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Mosaic (soybeans), Mottle (bean pods),  
Plant disease transmission, Soybeans.
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INHIBITION OF GERMINATION OF SPORES OF ALTERNARIA PORRI F.  
SP. SCLANI.  
J Rotem  
Phytopathology 53(10) 1241, BIBL.  
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Alternaria, Spore germination.
- 6875-68  
PHYTOPHTHORA CINNAMOMI ROOT ROT OF DOUGLAS-FIR.  
L F Roth  
Phytopathology 53(10) 1128-1131, BIBL.  
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Phytophthora, Pseudotsuga, Root rot (pseudotsuga menziesii).
- 6876-68  
GENETIC MODEL FOR PHYSIOLOGIC STUDIES OF MECHANISMS  
GOVERNING DEVELOPMENT OF INFECTION TYPE IN WHEAT STEM RUST.  
J B Rowell W Q Loegering B R Powers Jr  
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Genetics, Puccinia, Stem rust (wheat), Wheat.
- 6877-68  
PREVENTION OF SYMPTOM DEVELOPMENT OF FUSARIUM WILT OF COT-  
TON BY ISOLATES OF A CEPHALOSPORIUM SPECIES.  
I Roy M Patel  
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Cephalosporium, Cotton, Fusarium, Wilt (cotton),  
Wilt (tomatoes).
- 6878-68  
COMPARISONS OF PEA ENATION MOSAIC VIRUS ISOLATES.  
E G Ruppel D J Hagedorn  
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Beans, Enation mosaic (peas), Longevity, Peas,  
Plant disease resistance, Virology, Virus diseases (plants).
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MEASURING THE PATHOGENIC POTENTIAL OF PUCCINIA CORONATA  
VAR. AVENAE.  
E E Saari M B Moore  
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Crown rust (oats), Oats, Puccinia, Rhamnus.
- 6880-68  
USE OF RUST (PUCCINIA HELIANTHI) RACES TO DISCOVER NEW GENE  
POOLS FOR RUST RESISTANCE IN SUNFLOWER (HELIANTHUS ANNUUS).  
W E Sackston M A Jabbar Miah  
Phytopathology 53(8) 887  
Aug 1963 464.8 P56  
Genes, Puccinia, Rust (sunflower).
- 6881-68  
CHEMICAL CONTROL OF BACTERIAL BLIGHTS OF DRY FIELD BEANS IN  
MICHIGAN BY FOLIAGE SPRAYS APPLIED BY GROUND AND AIR EQUIP-  
MENT.  
A W Saettler H S Potter  
Plant Dis Rep 51(8) 6222-6225  
Aug 1967 1.9 P69P  
Aerial plant disease control, Aircraft,
- Chemical control (plant diseases), Copper compounds,  
Halo blight (beans), Helicopters, Spraying equipment,  
Thiocarbamates.  
Michigan State University Cooperative Extension Serv-  
ice, East Lansing, cooperating.  
Spray experiments for the chemical control of the halo and  
common bacterial blights of dry beans were conducted on var-  
ious commercial colored bean and white navy (pea) bean  
fields in Michigan during the 1966 growing season. Six dif-  
ferent copper compounds applied by both air and ground  
equipment were equally efficacious in controlling disease.  
Spraying with copper compounds had a beneficial effect on  
the yield of Dark Red Kidney and Light Red Kidney  
beans, but not of Sanilac navy beans. The result of 2 years  
of study suggest that spraying beans for blight control may  
be an effective, immediate means of reducing bean losses ac-  
companying blight infection.
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SPORANGIAL GERMINATION OF SCLEROSPORA GRAMINICOLA AND  
INOCULATION OF PENNISETUM GLAUCUM.  
K M Safeeulla C G Shaw  
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Oct 1963 464.8 P56  
Durra, Pearl millet, Sclerospora, Spore germination.
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OOSPORE CHARACTERS IN THE CLASSIFICATION OF SCLEROPHTHORA  
AND SCLEROSPORA SPECIES.  
K M Safeeulla C G Shaw  
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Oospores, Sclerophthora, Sclerospora.
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RESISTANCE IN MATTHIOLA INCANA TO THE TURNIP MOSAIC VIRUS.  
M O San Juan G S Pound  
Phytopathology 53(11) 1276-1279, BIBL., PL.  
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Matthiola, Mosaic (turnips), Plant disease resistance,  
Turnips, Virus A (cabbage).
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VARIATION WITHIN AND AMONG SPECIES OF MELOIDOGYNE.  
J N Sasser  
Phytopathology 53(8) 887-888  
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Meloidogyne, Plant hosts, Population.
- 6886-68  
HOST-PARASITE INTERACTION IN BLACKSPOT DISEASE OF ROSES  
CAUSED BY DIPLOCARPON ROSAE WOLF.  
P J W Saunders  
Ann Appl Biol 60 (1), 129-136 REF  
Aug 1967 442.8 AN72  
Amino acids, Black spot (rosa), Diplocarpon rosae,  
Parasitism, Plant disease resistance, Rosa.
- 6887-68  
EFFECTS OF RAPID COOLING TO SUBZERO TEMPERATURES ON MELOI-  
DOGYNE HAPLA AND M. INCOGNITA.  
R M Sayre  
Phytopathology 53(8) 888  
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Cooling, Meloidogyne, Temperature.
- 6888-68  
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A L Scharen  
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Epidemiology, Glume blotch (wheat),  
Plant disease transmission, Wheat.
- 6889-68  
UPTAKE OF HELMINTHOSPORIUM VICTORIAE TOXIN BY OAT TISSUE.  
R P Scheffer R B Pringle N P Dast  
Phytopathology 53(8) 888  
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Helminthosporium, Oats, Tissues, Toxins.
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TRANSMISSION OF A VIRUS DISEASE OF MUSHROOMS BY INFECTED  
SPORES.  
L C Schisler J W Sinden E M Sigel  
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Dieback (mushrooms), Mushrooms, Plant disease transmission,  
Virus diseases (plants).

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W C Schnathorst T E DeVay  
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Antigens, Cotton, Plant disease resistance, Xanthomonas.
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W C Schnathorst  
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Immunization, Verticillium.
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FACTORS AFFECTING RESISTANCE OF WHEAT TO SCAB CAUSED BY  
GHIBBERELLA ZEAE.  
H W Schroeder J J Christensen  
Phytopathology 53(7) 831-838, BIBL. 838, TABS., PL.  
Jul 1963 464.8 P56  
Gibberella, Plant disease resistance, Scab (wheat), Wheat.
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THE RELATION BETWEEN STORAGE MOLDS AND DAMAGE IN HIGH-MOIS-  
TURE RICE IN AFRATED STORAGE.  
H W Schroeder  
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Food storage, Molds, Rice, Storage diseases, Ventilation.
- 6895-68  
ORANGE STAIN, A STORAGE DISEASE OF RICE CAUSED BY PENICIL-  
LIUM FUEFFULUM.  
H W Schroeder  
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Color, Orange stain, Penicillium, Pigments (plant), Rice,  
Storage diseases.
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TURED ON VARIOUS NUTRIENT MEDIA.  
P H Schroeder  
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Corn, Nutrient solutions (plants), Pratylenchus,  
Reproduction, Roots.
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H A Scott J Bozicevich M M Vincent  
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SHIPPER CABBAGE.  
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Cabbage, Fungus diseases (plants), Plasmodiophora.
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EFFECTS OF ULTRAVIOLET PREINOCULATION TREATMENT OF LEAVES ON  
SUBSEQUENT INFECTION BY TOBACCO MOSAIC VIRUS AND TMV.  
RIBONUCLEIC ACID.  
T Semal S G Wildman T H Wu  
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Leaves, Mosaic (tobacco), Ribonucleic acid, Tobacco,  
Ultraviolet rays.
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INHIBITION OF INDOLEACETIC ACID OXIDASE IN TOBACCO PLANTS  
INFECTED BY PSEUDOMONAS SOLANACEARUM.  
L Sequeira  
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Indoleacetic acid, Pseudomonas, Tobacco.
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THE NATURE OF STAIN UPTAKE IN ULTRATHIN SECTIONS OF TOBACCO  
MOSAIC VIRUS.  
T A Shalla T W Carroll G A DeZoeten  
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Electron microscopy, Mosaic (tobacco), Tobacco, Tomatoes.
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T A Shalla  
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Chloroplasts, Cytoplasm, Mosaic (tobacco), Tomatoes.
- 6903-68  
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E L Sharp  
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Diurnal rhythm, Host plants, Parasitism, Puccinia,  
Temperature, Wheat.
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OVERWINTERING OF STRIPE RUST IN WINTER WHEAT IN MONTANA.  
E L Sharp E R Hehn  
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Hibernation, Montana, Puccinia, Stripe rust (wheat), Wheat.
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IDENTIFICATION OF THREE PHYSIOLOGIC RACES OF RHIZOCTONIA  
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Cotton, Rhizoctonia, Seedlings.
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R J Shepherd  
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Arkansas, Ceratoma, Cowpeas, Mosaic (cowpeas),  
Mottle (bean pod), Trinidad.
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TOBACCO MOSAIC VIRUS ACTIVITY AND GROWTH OF INOCULATED  
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R C Sievert A C Hildebrandt A J Riker  
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Clones, Mosaic (tobacco), Tobacco.
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A METHOD OF USING MYCELIAL, MONOSPORIDIAL ISOLATES OF  
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M J Silvernagel  
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Breeding, Stinking smut (wheat), Tilletia, Wheat.
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THE EFFECT OF GROWTH SUBSTANCES ON VERTICILLIUM WILT OF  
TOMATO PLANTS.  
A K Sinha R K S Wood  
Ann Appl Biol 60 (1), 117-128 REF  
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Chemical control (plant diseases), Plant regulators,  
Tomatoes, Verticillium albo-atrum, Wilt (tomatoes).
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EFFECT OF AGE OF VECTOR AND OF ABDOMEN PUNCTURES ON VIRUS  
TRANSMISSION.  
R C Sinha  
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Abdomen, Insect vectors, Plant disease transmission,  
Virus diseases (plants), Yellow dwarf (potatoes).
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PATHOGENICITY OF PHACIDIUM ABIETIS.  
E Smerlis  
Plant Dis Rep 51 (8) 678-679  
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Fungus diseases (plants), Phacidium abietis, Picea, Pinus,



- Snow blight (Coniferae), Thuja.
- 6912-68  
HYDROTHERMAL AND HYGROTHERMAL INACTIVATION OF MONILINIA FRUCTICOLA AND RHIZOPUS STOLONIFER SPORES.  
W L Smith Jr & D Bassett  
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Beat, Hot water treatment (plants), Humidity, Monilinia, Plant disease control, Rhizopus.
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CONTROL OF THE CHARCOAL ROOT DISEASE OF WHITE FIR BY FALL SOIL FUMIGATION.  
R S Smith & I Krugman  
Plant Dis Rep 51 (8) 671-674  
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Abies concolor, Charcoal root (Abies concolor), Charcoal root (Pinus ponderosa), Fungus diseases (plants), Macrophomina phaseoli, Methyl and propargyl bromides plus trichloronitromethane, Methyl bromide plus trichloronitromethane, Pinus ponderosa, Plant disease control, Soil fumigation.  
A fall application of two soil fumigants was tested as a means of reducing mortality of white fir and ponderosa pine nursery seedlings from the charcoal root disease and as a means of producing disease-free stock. fumigation treatments lowered fir seedling mortality by about 50 percent and reduced the proportion of seedlings of both species with infected roots from 100 percent in the untreated beds to 25 percent in the better of the two treatments. the mean number of infections per seedling sample also was reduced from 8.1 to 0.3 in the fir and from 3.9 to 0.2 in the pine root tips, lateral roots, and tap roots differed in their susceptibility to infection. it appears that a fall soil treatment with these fumigants will control the charcoal root disease and will produce disease-free stock.
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BIPHENYL-RESISTANT CITRUS GREEN MOLD REPORTED IN FLORIDA.  
J J Smoot & J R Winston  
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Biphenyl, Citrus, Fungicide resistant fungi, Fungus diseases (plants), Green mold (citrus), Penicillium digitatum, Storage diseases.
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EFFECTS OF SOME CYTOKININS ON TOBACCO AND THEIR RELATION TO TOBACCO MOSAIC VIRUS INFECTION.  
L C Scans  
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Benzimidazole, Benzyl-9-(tetrahydropyran-2-yl)-adenine, N-, Kinetin, Kinins, Mosaic (tobacco), Plant physiology, Tobacco.
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Alfalfa, Echeveria, Kalanchoe, Leafspot (echeveria), Leafspot (kalanchoe), Leafspot (sedum), Sedum, Stemphylium, Tomatoes.
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IMPROVING EMERGENCE OF PELLETED VEGETABLE SEEDS WITH POROUS COATINGS.  
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Seed germination, Seed treatment, Vegetables.
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THREE DISEASES OF GUAR.  
G Sowell Jr  
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Guar, Xanthomonas.
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Cellulase, Enzymes, Rhizopus.
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FACTORS AFFECTING THE PATHOGENESIS OF PYTHIUM SPECIES ON COTTON (GOSSYPIUM HIRSUTUM L) SEEDLINGS.  
J A Spencer  
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G P Srivastava  
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Apsylla cistellata, Mangoes, Plant diseases.
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RELATION OF AGROPYRON REPENS MOSAIC AND WHEAT STREAK MOSAIC VIRUS.  
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R C Staples & M A Stahmann  
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Beans, Enzymes, Leaves, Molecules, Rust (beans).
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STUDIES ON THE HOST RANGE AND PATHOGENICITY OF ERYSIPE POLYONI.  
J R Stavely & E W Hason  
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Erysiphe, Host range, Pathogenicity.
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IDENTIFICATION OF THE VIRUSES AFFECTING COMMERCIAL VARIETIES OF PEPPER (CAPSICUM ANNUM) IN NEW JERSEY.  
T L Steepy & G D Lewis & E H Varney  
Plant Dis Rep 51 (8) 709-711 REF  
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Etch (redpeppers), Host indexing (plants), Mosaic (redpeppers), Redpeppers (vegetable), Serological tests, Virus diseases (plants), Virus X (redpeppers), Virus Y (redpeppers).  
Differential hosts and serological techniques were used to identify viruses isolated in the summer and fall of 1965 from commercial plants of pepper (Capsicum annum) in New Jersey. tobacco etch virus was found to be the principal cause of virus diseases. tobacco mosaic virus, potato virus X, and cucumber mosaic virus were isolated from a small number of plantings, while potato virus Y was not isolated during the study.
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A MOSAIC VIRUS TRANSMITTED BY BEETLES AND A GRASSHOPPER.  
W N Stoner  
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F E Ellertson  
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Cherries, Diazinon, Dicofof, Malathion,  
P-chlorophenyl phenyl sulfone, Parathion, Peaches,  
Sulphenone, Tetradifon, Tetranychus.
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Residues.
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DEVELOPMENT AND INSECTS ATTACKING GRAIN SORGHUM.  
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Seed germination, Seeds, Sorghum, Thiram.
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CONTROL ON BUSH SNAP BEANS IN THE EVERGLADES.  
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Dieldrin, Endosulfan, Everglades, Kepone, Leaves, Meteorus,  
Mevinphos,  
Octachloro-3a,4,7a-tetrahydro-4,7-methanophthalan,1,3,4,5,,  
Perthane, SD-4402, Toxaphene,
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Lepidoptera.
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G E Gould  
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E O Hamstead E Gould  
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R C Hartenstein  
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R E Kirk M C Wilson  
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Disulfoton, Lima beans, Phorate, Tetranychus, Thrips.
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Forest surveys, Forestry, Insects, Picea, Pinus, Rocky mountains.
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M C Wilson B F Hodges R L Gallun R E Kirk  
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Aphididae, Phorate, Wheat.
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DDT, Endosulfan, Parathion, Potatoes, South florida, Toxaphene.
- 7080-68  
FURTHER STUDIES ON CONTROL OF THE CLOVER ROOT BORER IN VIRGINIA.  
A M Woodside  
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Aldrin, Benzene hexachloride, Chlordane, DDT, Bephtachlor, Bylastinus, Red clover.
- 7081-68  
THE SUITABILITY OF TOBACCOS FOR THE GROWTH OF THE CIGARETTE BEETLE, LASIODERMA FERROCORNE.  
R T Yamamoto G Fraenkel  
J Econ Entomol 53(3) 381-384, BIHL. 383-384, TABS.  
Jun 1960 421 J822  
Lasioderma, Nicotine, Tenebrio, Tobacco, Tribolium.
- 7082-68  
A BACTERIAL INFECTION OF XIPHENEMA AMERICANUM.  
R E Adams J J Eichenmuller  
Phytopathology 53(7) 745  
Jul 1963 464.8 P56  
Xiphinema americanum.
- 7083-68  
STALK BREEDING AND PLOWING AS METHODS FOR CONTROLLING THE PINK BOLLWORM, PECTINOPHORA GOSPIELLA.  
P L Adkisson L B Wilkes B J Cochran  
J Econ Entomol 53(3) 436-439, BIHL., TABS.  
Jun 1960 421 J822
- Cotton, Larvae, Stalk shredding.
- 7084-68  
A COMPARISON OF THE TOXICITY OF INSECTICIDES FOR THE CONTROL OF CORN EARWORM ON SWEET CORN.  
L D Anderson B T Reynolds  
J Econ Entomol 53(1) 22-24, BIHL., PL.  
Feb 1960 421 J822  
Azinphosmethyl, Carbaryl, Diazinon, DDT, Endosulfan, Heptachlor, Isodrin, Sweetcorn, Toxicology, Trichlorion.
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BIOLOGY OF THE OAK TIMBERWORM, ARRHENODES MINUTUS.  
W D Buchanan  
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Arrhenodes, Insect biology.
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DEVELOPMENT OF MELOIDOGYNE HAPLA AND M. INCOGNITA IN ALFALFA.  
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Alfalfa, Meloidogyne.
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Corn, Crop yields, Plant composition, Plant nematodes, Planting, Soil chemistry, Sorghum, Water consumptive use.
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OBSERVATIONS ON THE UTILIZATION OF THE BEXOSE MONOPHOSPHATE PATHWAY IN NEMATODE-INFECTED ROOTS OF TOMATO.  
B E DeMott  
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Glucose, Bexose phosphates, Meloidogyne incognita acrita, Plant metabolism, Plant nematodes, Tomatoes.
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SWEETPOTATO VARIETAL REACTION TO SPECIES AND RACES OF ROOT-KNOT NEMATODES.  
M J Giamalva W J Martin T P Bernandez  
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Oct 1963 464.8 P56  
Meloidogyne, Plant nematode resistance, Sweetpotatoes.
- 7090-68  
EVALUATION OF SEVERAL TECHNIQUES FOR SCREENING ALFALFA FOR RESISTANCE TO DITYLENCHUS DIPSACI.  
G D Griffin  
Plant Dis Rep 51 (8) 651-654  
Aug 1967 1.9 P69P  
Alfalfa, Ditylenchus dipsaci, Plant nematode resistance. Utah State University Agricultural Experiment Station cooperating.  
Several techniques were studied to determine their reliability in a screening program for resistance of alfalfa to Ditylenchus dipsaci. methods used were: inoculating swollen alfalfa seed with a water, or a 1 percent methyl cellulose suspension of nematodes; inoculating alfalfa cotyledons with a one percent methyl cellulose suspension of nematodes; and inoculating mature alfalfa plants at crown bud initiation with a water suspension of nematodes. inoculation was effective when inoculated seed was maintained on a greenhouse bench at 30-60 percent relative humidity, or in a controlled humidity chamber at 80-100 percent relative humidity. inoculation of mature plants was more effective, however and inoculated cotyledons were only effective when maintained in a controlled humidity chamber at 80-100%. all methods required very little plant handling, and plants could be grown indefinitely to be certain of their susceptibility or resistance. there was one advantage to inoculating alfalfa seed. fewer nematodes were used, and possible escapes could be re-inoculated in the cotyledon stage.
- 7091-68  
BELICOTYLENCHUS THORNEI N SP (NEMATODA, BOPLLOLAIMINAE) FROM A TOMATO PLANT FIELD IN LUDHIANA, PUNJAB.  
N K Gupta H K Chhabra  
Panjab Univ Res Bull (N.S.) 17 (3/4), 323-325  
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Helicotylenchus thornei, Boplolaiminae, Plant nematodes,

## Nematodes

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Tomatoes.  
Abstract included.

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N K Gupta J C Gupta  
Panjab Univ Res Bull (N.S.) 17 (3/4), 223-226  
Dec 1966 513 EA72  
Cauliflower, *Filenchus*, Plant nematodes, *Tylenchorhynchus*, *Tylenchus*.  
Abstract included.

7093-68

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N K Gupta J C Gupta  
Panjab Univ Res Bull (N.S.) 17 (3/4), 219-220  
Dec 1966 513 EA72  
Citrus, *Criconema laterale*, *Criconematidae*, India, Plant nematodes.  
Abstract included.

7094-68

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N K Gupta J C Gupta  
Panjab Univ Res Bull (N.S.) 17 (3/4), 211-213  
Dec 1966 513 EA72  
Citrus, *Hoplolaimus indicus*, Plant nematodes.  
Abstract included.

7095-68

STUDIES ON TWO PLANT NEMATODE SPECIES OF THE GENUS XIPHINEMA COEB, 1913.  
N K Gupta J C Gupta  
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Dec 1966 513 EA72  
Citrus, Plant nematodes, *Xiphinema basiri*, *Xiphinema indicum*.  
Abstract included.

7096-68

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N K Gupta J C Gupta  
Panjab Univ Res Bull (N.S.), 17 (3/4), 221-222  
Dec 1966 513 EA72  
Citrus, Grasses, *Helicotylenchus indicus*, *Hoplolaimidae*, Parasitism, Plant nematodes.  
Abstract included.

7097-68

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N K Gupta J C Gupta  
Panjab Univ Res Bull (N.S.) 17 (3/4), 215-217  
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Citrus, India, *Longidorus brevicaudatus*, Plant nematodes.  
Abstract included.

7098-68

AN ATTEMPT TO EXTEND THE LONGEVITY OF THE BURROWING NEMATODE, RADOPHOLUS SIMILIS, WITH CITRUS ROOT EXUDATE.  
R W Hanks A W Feldman  
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Aug 1967 1.9 P69P  
Citrus, Longevity, Plant nematodes, *Radopholus similis*, Root excretions.  
*Radopholus similis* was provided with a continuous supply of citrus root exudate in a root-free environment to determine whether the nematodes could adapt to the exudate as a source of food and thereby extend their longevity beyond 6 months in the absence of roots. root exudate was continuously supplied by grapefruit seedlings grown in large glass cylinders fitted with sintered glass discs which permitted root exudate to pass into the environment of the nematodes but prevented their contact with the roots. since no burrowing nematodes survived as long as 8 months, root exudate was of no significance for extending *R. similis* longevity in the absence of contact with living roots.

7099-68

THE EFFECT OF CRICONEMOIDES CURVATUM AND PRATYLENCHUS PENETRANS ON WOODY ORNAMENTALS.  
C M Heald W B Jenkins  
Phytopathology 53(7) 746  
Jul 1963 464.8 P56

*Criconemoides curvatum*, Ornamental trees, Plant nematodes, *Pratylenchus penetrans*, Shrubs.

7100-68

THE POPULATION GENETICS OF THE POTATO CYST-NEMATODE, HETERODERA ROSTOCHIENSIS, MATHEMATICAL MODELS TO SIMULATE THE EFFECTS OF GROWING EELWORM-RESISTANT POTATOES BREED FROM SOLANUM TUBEROSUM SSP. ANDIGENA.  
F G W Jones D M Parrott G J S Ross  
Ann Appl Biol 60 (1), 151-171 REF  
Aug 1967 442.8 AN72  
Genetics, *Heterodera rostochiensis*, Plant nematode resistance, Plant nematodes, Population, Potatoes.

7101-68

POPULATION DYNAMICS AND FUMIGATION STUDIES OF CERTAIN NEMATODES ASSOCIATED WITH ROOTS OF WHEAT IN NEBRASKA.  
E D Kerr  
Plant Dis Rep 51 (8) 637-641  
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Dichloropropene, 1,3-, Plant nematodes, Population, Soil fumigation, Trichloronitromethane, Wheat.  
Nine stylet-bearing nematode genera (*Pratylenchus*, *Phratylenchus*, *Tylenchorhynchus*, *Aphelenchus*, *Aphelenchoides*, *Xiphinema*, *Ditylenchus*, *Helicotylenchus*, and *Tylenchus*) and species of dorylaims and non-stylet-bearing nematodes were recovered from soil samples taken in fields of winter wheat in Nebraska. a substantial number of several genera survived summer fallowing in western Nebraska. the stylet bearing species were generally recovered from soil in highest numbers in March through June and in lowest numbers in December through February and July through August. during the spring months, numbers of *Paratylenchus microdorus*, *Tylenchorhynchus brevidens*, *Tylenchus* spp., and *Aphelenchoides* spp. were significantly higher in plots of growing wheat than in fallow plots. fumigation of field soil, both for plot tests and a greenhouse pot test, with trichloronitromethane and 1,3-dichloropropene resulted in good nematode control and increased growth of wheat.

7102-68

A PLANT-PARASITIC NEMATODE OF THE GENUS ROTYLENCHULUS FOUND IN CALIFORNIA.  
D E Konicsek  
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California, Nematodes, *Rotylenchulus*.

7103-68

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Phytopathology 53(8) 884  
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*Ditylenchus*, *Eserine*, *Meloidogyne*, Nematodes, Nicotine, Parasitism, Pyridine.

7104-68

CONTROL OF ARMY CUTWORMS IN ALFALFA DURING 1959.  
R E Pfadt  
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Alfalfa, Dieldrin, Dilan, Endrin, DDT.

7105-68

SMALL AMOUNTS OF INSECTICIDES EFFECTIVE IN CONTROLLING GRUBS OF THE JAPANESE BEETLE.  
J H Polivka  
J Econ Entomol 53(2) 320, BIHL.  
Apr 1960 421 J822  
Aldrin, Benzene hexachloride, Chlordane, Grubs, Heptachlor.

7106-68

DECLINE OF GRAPEFRUIT TREES IN RELATION TO CITRUS NEMATODE POPULATIONS AND TREE RECOVERY AFTER CHEMICAL TREATMENT.  
H W Reynolds J H O Hannon  
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Citrus, Grapefruit, Nematodes, 1,2-dibromo-3-chloropropane.

7107-68

PICKLEWORM CONTROL AND RESIDUE STUDIES WITH MALATHION AND PHOSDRIN.  
J E Roberts L E Anderson  
J Econ Entomol 53(3) 482-483, BIHL.  
Jun 1960 421 J822  
Cucumbers, Malathion, Mevinphos, Residues.



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LESION NEMATODE INJURY TO CARROT.  
R A Rohde  
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Carrots, Nematodes, *Pratylenchus*.
- 7109-68  
NEMATODE-INDUCED CALLUS ON CARROT DISCS GROWN IN VITRO.  
R Sandstedt M L Schuster  
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Callus (plants), Carrots, Meloidogyne, Nematodes.
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Beets, *Loxostege*, Soil moisture, Soils.
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G Swarup R D Sharma  
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S D Van Gundy J D Kirkpatrick  
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Citrus, Histology, Larvae, Nematodes, Plant disease resistance, Roots.
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O P Vargus-gonzales  
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D P Wallesz D M Benjamin  
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Aerial spraying, Choristoneura, DDT, Picea.
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G P Wene D M Tuttle L W Sheets  
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Arizona, Carbaryl, Cotton, Diazinon, Dilan, DDT, Endrin, Estigmenne acraea, Malathion, Methyl parathion, Parathion, Sodium fluosilicate, Toxaphene, Trichlorion.
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R C Brian  
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Diquat, Herbicides, Paraquat, Sugar beets, Tomatoes.
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O C Burnside G A Wicks C R Fenster  
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W A Gentner  
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RESPONSE OF SELECTED AND RANDOM PLANTINGS OF JOHNSONGRASS (*SORGHUM BALEPENSE*) TO DALAPON.  
K C Hamilton B Tucker  
Weeds 12(3) 220-222  
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Dalapon, Dichloropropionic acid, 2,2-, Foliar application, Sorghum.
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PARAQUAT FOR SELECTIVE CONTROL OF RANGE WEEDS.  
B L Kay  
Weeds 12(3) 192-194  
Jul 1964 79.8 W41  
California, Clover, Dimethyl-4,4-dipyridylum, 1,1-; Elymus, Festuca, Grasses, Hordeum, Lolium, Paraquat, Plant injuries, Ranges, Vetch, Weeds.
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S Mahadeva  
Diss Abstr Sect B 27 (12,PT.1), 4204B  
Jun 1967 Z5055.049D53  
Crop yields, Diquat, Herbicides, Humidity, Light, Pesticide application, Potatoes, Temperature.

20 7128-68

7128-68

PLANT EXTRACTS, RESIDUES, AND SOIL MINERALS IN RELATION TO COMPETITION OF QUACKGRASS (*AGROPYRON REPENS*) WITH OATS AND ALFALFA.

J H Ohman T Kommedahl

Weeds 12(3) 222-231

Jul 1964 79.8 W41

Agropyron, Alfalfa, Nitrogen, Oats, Plant extracts, Plant residues, Poisonous plants, Soil extracts.

7129-68

CHLOROPHYLL FORMATION IN *EUGLENA* AS A TEST FOR HERBICIDES.

C A Price M G Estrada

Weeds 12(3) 234-235

Jul 1964 79.8 W41

Amitrole, Biological assay, Chlorophylls, Chloroplasts, Ethidnine, *Euglena*.

7130-68

CHARACTERISTICS AND CONTROL OF SWAINSONPEA.

W C Robccker A D Kerr V F Bruns

Weeds 12(3) 189-191

Jul 1964 79.8 W41

Swainsonia, T, 2,4,5-, TBA, 2,3,6-, Western United States, 2-(2,4,5-trichlorophenoxy) propionic acid, 2,4-D.

7131-68

WEED SCIENCE - REVOLUTION IN AGRICULTURAL TECHNOLOGY.

W C Shaw

Weeds 12(3) 153-162

Jul 1964 79.8 W41

Agricultural outlook, Agricultural production economics, Agricultural productivity, Chemical control (weeds), Herbicides, Weeds.

7132-68

AN EVALUATION OF ATRAZINE, SIMAZINE, MONURON AND DIURON ON TEN HAWAIIAN SUGAR CANE PLANTATIONS.

K A Sund

Weeds 12(3) 215-219

Jul 1964 79.8 W41

Atrazine, Chloro-4,6-bis(ethylamino)-6-isopropylamino-s-triazine, 2-, Diuron, Hawaii, Monuron, Simazine, Sugarcane.

## Other Pests

7133-68

LEPTOSPIRES ISOLATED FROM NUTRIA.

Amer Vet Med Ass J 142(2) 146

15 Jan 1963 41.8 AM3

Leptospira, Mycocard, Nutria.

7134-68

LEUCODERMIA-LIKE DISEASE IN THE CULTURE OF GIANT AFRICAN SNAIL *ACHATINA FULICA* BOWDICH.

P D Srivastava

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Sep 1966 420 IN23

*Achatina fulica*, Diseases, Leucoderma, Snails.

## 30 LIVESTOCK PROTECTION

7135-68

CALCIUM REQUIREMENTS OF TURKEY BREEDER HENS.

S L Balloun D L Miller

Poultry Sci 43(2) 378-381

Mar 1964 47.8 AM33P

Animal nutrition, Calcium, Egg production, Turkey eggs, Turkeys.

7136-68

PHYSIOLOGICAL AND PHARMACOLOGICAL FACTORS WHICH INFLUENCE THE INCIDENCE OF ACUTE PULMONARY ALTERATIONS FOLLOWING VAGOTOMY IN THE DOMESTIC COCK.

R E Burger M R Fedde

Poultry Sci 43(2) 384-393

Mar 1964 47.8 AM33P

Cocks, Pentobarbital sodium, Phenoxybenzamine, Pulmonary edema, Reserpine, Vagotomy.

7137-68

INFLUENCE OF DIETARY ZINC, CALCIUM AND VITAMIN D FOR HENS ON ZINC CONTENT OF TISSUES AND EGGS AND ON BONE COMPOSITION.

E W Kienholz M L Sunde W G Hoekstra

Poultry Sci 43(3) 667-675

May 1964 47.8 AM33P

Bones, Calcium, Chickens, Feed additives, Tissues, Vitamin D, Zinc.

7138-68

THE INCIDENCE OF SPONTANEOUS PATHOLOGIC CHANGES IN AORTAS OF GROWING TURKEYS.

B E McDonald H R Bird J J Lalich

Poultry Sci 43(2) 341-352

Mar 1964 47.8 AM33P

Aneurysms, Aorta, Sex, Turkeys.

7139-68

ZINC AVAILABILITY IN THE CHICK AS AFFECTED BY PHYTATE, CALCIUM AND ETHYLENEDIAMINETETRAACETATE.

B L O Dell J M Yohe J E Savage

Poultry Sci 43(2) 415-461

Mar 1964 47.8 AM33P

Calcium, Chicks, Phytates, Zinc.

7140-68

POTENTIATION OF CHLORTETRACYCLINE IN LAYING CHICKENS.

A R Robblee D R Clandinin

Poultry Sci 43(2) 462-466

Mar 1964 47.8 AM33P

Calcium, Chickens, Chlortetracycline, Eggs, Terephthalic acid.

7141-68

STUDIES ON THE DIETARY REQUIREMENT AND INTERACTION OF MAGNESIUM WITH ANTIBIOTICS IN TURKEYS TO 4 WEEKS OF AGE.

T W Sullivan

Poultry Sci 43(2) 401-405

Mar 1964 47.8 AM33P

Antibiotics, Magnesium, Penicillin, Streptomycin, Turkeys.

7142-68

INFLUENCE OF VITAMIN D ON AVARIOUS ASPECTS OF THE REPRODUCTIVE PROCESS IN MATURE HENS.

J L Turk J McGinnis

Poultry Sci 43(3) 539-583

May 1964 47.8 AM33P

Chickens, Eggs, Reproduction, Vitamin D.

7143-68

THE UTILIZATION BY THE CHICK OF CALCIUM FROM DIFFERENT SOURCES.

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Poultry Sci 43(1) 212-216

Jun 1964 47.8 AM33P

Calcium, Chicks.



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COMMON PROBLEMS IN THE PIG.  
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11 Aug 1962 41.8 V641  
Anemia, Pneumonia, Rhinitis, Swine.
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HOG CHOLERA IS ON THE WAY OUT.  
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15 Sep 1965 41.8 AM3  
Germ-free life, Bcg cholera, Swine.
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POSSIBLE HAZARDS IN THE VETERINARY USE OF ANTIBIOTICS WITH PARTICULAR REFERENCE TO THEIR USE AS FOOD ADDITIVES.  
Vet Rec 76(4) 110-111, 4 REFS.  
25 Jan 1964 41.8 V641  
Antibiotics, Food additives, Residues.
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EXPERIMENTAL ORNITHOSIS IN CALVES.  
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15 Mar 1963 41.8 AM3  
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Jun 1966 Z5055.U49D53

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Cystine, Dogs, Urinary calculi.

7531-68

A NEW PENICILLIN.

T Turner

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Penicillin.

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T Turner

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Dogs, Metaldehyde, Pentobarbital, Poisoning.



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- 7538-68  
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W N Bruce S Moore III g C Decker  
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## SUBJECT INDEX

## ACTINOPHAGES

- Studies on the metabolism and residues of P32-labeled Delnav in a Hereford steer. 7676
- ABDOMEN**  
Effect of age of vector and of abdomen punctures on virus transmission. 6910
- ABIES**  
Pomes annosus. 6705  
Some characteristics of dwarf mistletoe populations on red fir. 6850
- ABIES CONCOLOR**  
Control of the charcoal root disease of white fir by fall soil fumigation. 6913
- ABNORMALITIES**  
Studies on a virus causing stem grooving and graft-union abnormalities in Virginia Crab apple. 6843  
Some congenital abnormalities in the beaks and skulls of wildfowl. 7343  
Abomasal impaction. 7383
- ABOMASUM**  
Abomasal impaction. 7383
- ABORTIFACIENTS**  
Injected saponins as abortifacients. 7203
- ABORTION**  
Detection of bovine brucellosis by acidified plate test antigens. 7181  
Brucella-vaccinated cattle have fewer abortions, infected less easily. 7188  
Ovine abortion virus in ewes and fetuses. 7195  
Injected saponins as abortifacients. 7203  
Infectious bovine rhinotracheitis abortion and its relationship to nutrition in California beef cattle. 7278  
Equine viral abortion in western Montana. 7334  
Abortion and infertility in sows in Ireland apparently due to infection by *Leptospira canicola*. 7422  
Immunologic and epizootiologic studies of epizootic bovine abortion. 7425  
Abortion in the sow due to infection by *Leptospira canicola* - A preliminary report. 7428  
The economic loss associated with infectious bovine Rhinotracheitis in a dairy herd. 7463  
Viral causes of bovine abortion in Ohio. 7493  
Tick-borne fever as a cause of abortion and stillbirths in cattle. 7557  
Further studies on toxoplasmosis and ovine abortion in Yorkshire. 7596  
Ovine abortion and toxoplasmosis in the East Midlands. 7597
- ABSCESSES**  
Evaluation of bacterins for control of swine abscesses. 7276  
The influence of physical form of roughages and antibiotic administration on performance, carcass characteristics, health, of the rumen epithelium, rumen volatile fatty acids and liver abscesses of steers fed all-concentrate rations. 7347
- ABSTRACTS**  
Abstracts of papers accepted for presentation at the fifty-fifth annual meeting of the American Phytopathological Society, Amherst, Mass., August 26, 27, 28, 29, 1963. 6690
- ACALYMMA**  
A mosaic virus transmitted by beetles and a grasshopper. 6926
- ACARACIDES**  
Soil injection as a means of applying systemic acaricides to fruit trees. 6997
- ACARICIDES**  
Structure and pesticidal activities of derivatives of dinitrophenols. III. Structure and acaricidal activity of certain carbonates of 2-alkyl-5-methyl-4,6-dinitrophenols and related compounds. 7696
- ACARINA**  
Acarina associated with Michigan Bombinae. I-II. . 6458
- ACCIDENT PREVENTION**  
The safe use of toxic chemicals. 7660  
Pesticide safety education. 7759  
The safe use of modern pesticides. 2. 7760
- ACERATAGALLIA**  
Vectors of alfalfa and bean yellow mosaic viruses in Ladino white clover. 6803
- ACETALDEHYDE**  
Screening tests with synthetic compounds as synergists for house fly sprays. 6682
- ACETHION**  
Relationship between metabolism and differential toxicity in insects and mice of Diazinon, dimethoate, parathion, and acethion. 6570
- ACHAEA JANATA**  
Morphology of the alimentary canal and associated glands of the mature larva of *Achaea janata* L. (Lepidoptera, noctuidae). 6583
- ACHATINA FULICA**  
Leucodermia-like disease in the culture of giant African snail *Achatina fulica* Bowdich. 7134
- ACHETA**  
The house cricket, *Acheta domestica*, and the house fly, *Musca domestica*, as a model predator-prey system. 6613
- ACHROMOBACTERACEAE**  
Bacteria of grasshoppers of western Canada Ii. The Pseudomonadaceae, Achromobacteraceae, Micrococcaceae, Brevibacteriaceae, Lactobacillaceae, and less important families. 6503
- ACID FAST BACTERIA**  
A non-tuberculous granuloma of the cat associated with an acid-fast bacillus. 7550  
A non-tuberculous granuloma of the cat associated with an acid-fast bacillus. 7551
- ACORNS**  
Acorn poisoning in a cow and a sheep. 7308
- ACRAEA BONASIA**  
Note on the biology of *Acraea bonasia* Fabricius from eastern Nigeria (Lepidoptera, Nymphalidae). 6561
- ACRIDIDAE**  
Mechanism of locust jumping. 6498  
The bacterium *Coccobacillus acridiorum* d Herelle Its taxonomic position and status as a pathogen of locusts and grasshoppers. 6504  
Transmission of tumors in *Locusta migratoria* Linnaeus by nucleic acid extracted from the tumors. 6586
- ACRYLONITRILE**  
Effectiveness of mixtures of acrylonitrile and carbon tetrachloride against three pests of stored corn. 7055
- ACTINOPHAGES**  
Seminal vesticulitis in bulls associated with infection by *Actinobacillus actinoides*. 7384

# SUBJECT INDEX

## ACYRTHOSIPHON PISUM

### ACYRTHOSIPHON PISUM

Laboratory studies on the rearing of *Aphidius smithi* (Hymenoptera, Braconidae) and its parasitism of *Acyrtosiphon pisum* (Homoptera, Aphididae). 6528

### ADENOSIBETHRIPOSPHATASE

ATPase activity of the erythrocytic membrane in anaplasmosis and of *Anaplasma marginale*. 7317

### ADRENAL GLANDS

Calcification of the adrenal glands in a dog. 7370  
Effects of cortisol and adrenalecomy on induction of interferon by endotoxin. 7468

### ADVERTISING

Advertisements, antibiotics and mastitis. 7524

### AEDES

Toxicological action of DDT on three species of mosquito larvae. 6658

Suspected cases of western encephalitis on increase. 7174

Rift valley fever in lambs and sheep. 7206

### AEDES AEGYPTI

Preliminary laboratory results on the susceptibility of *Aedes aegypti* (Linnaeus) to *Bacillus thuringiensis* Berliner. 6575

Use of an animal membrane in the evaluation of chemical repellents against the stable fly. 7568

Apparatus for insecticide assay. 7753

### AERIAL PLANT DISEASE CONTROL

Chemical control of bacterial blights of dry field beans in Michigan by foliage sprays applied by ground and air equipment. 6881

### AERIAL SPEAYING

Field control of cotton mites with Aramite aerial spray in California. 6998

Residues of Sevin and 1-naphthol on forage from aerial applications of Sevin in oil. 7020

Aerial forest spraying against spruce budworm- A problem of mutual interest in Canada and the United States. 7117

### AFATOXIN

Toxicity in groundnuts. 7156

Groundnut toxicity. *Aspergillus flavus* toxin (aflatoxin) in animal products preliminary communication. 7225

Groundnut toxicity. 7264

Groundnut toxicity *Aspergillus flavus* toxin (aflatoxin) in animal products. 7322

Groundnut toxicity. 7323

The presence of aflatoxin in a sample of cotton-seed cake. 7406

Factors other than groundnut in the production of aflatoxin. 7476

### AFRICAN HORSE SICKNESS

African horse-sickness. 7200

### AGAR

Growth inhibition of *Phytophthora cinnamomi* by soil diffusates on agar medium. 6946

Influence of light on growth of *Aspergillus restrictus* in agar culture. 6957

### AGAVE

Injected saponins as abortifacients. 7203

### AGGLUTINATION TEST

Bruceella agglutinins in East African game animals. 7484

### AGING

Histopathological changes with age in the flight muscles of the African mosquito, *Eretmapodites chrysogaster*. 6554

### AGRANULOCYTOSIS

Histologic and electron microscopic studies of agranulocytes and hemal and hemolymph nodes in cattle. 7545

### AGRICULTURAL ADMINISTRATION

Science and education a new awareness. 7122

### AGRICULTURAL EDUCATION

Science and education a new awareness. 7122

### AGRICULTURAL OUTLOOK

Weed science - revolution in agricultural technology. 7131

### AGRICULTURAL PRODUCTION ECONOMICS

Weed science - revolution in agricultural technology. 7131

### AGRICULTURAL PRODUCTIVITY

Weed science - revolution in agricultural technology. 7131

### AGRICULTURAL RESEARCH

Science and education a new awareness. 7122

### AGROBACTERIUM

Addition of fungal cell-wall components to soil for biological disease control. 6822

Hairy root (*Agrobacterium rhizogenes*) of field roses. 6829

Comparative bactericidal properties of N-polyhaloethylthio hydantoins. 7737

### AGROPYRON

Relation of *Agropyron repens* mosaic and wheat streak mosaic virus. 6922

Plant extracts, residues, and soil minerals in relation to competition of quackgrass (*Agropyron repens*) with oats and alfalfa. 7128

### AIR POLLUTION

Response of plants to air pollutants. II. Effects of ozone concentration and leaf maturity on injury to *Nicotiana tabacum*. 6815

### AIRCRAFT

Chemical control of bacterial blights of dry field beans in Michigan by foliage sprays applied by ground and air equipment. 6881

### ALABAMA

Further tests on the use of a polyhedrosis virus in the control of the cotton leafworm *Prodenia litura*, Fabricius. 6445

Boll weevil susceptibility to toxaphene, endrin, and Guthion in five Alabama localities. 6505

### ALBERTA

Effects of low temperature on the survival of the alfalfa weevil from Alberta and Utah. 7047

### ALBUGO

Nature and inheritance of resistance to *Albugo candida* in radish. 6965

Biological races of *Albugo candida*. 7722

Physiological races of *Albugo candida*. 7731

### ALDRIN

Control of the woolly apple aphid on roots of apple nursery stock. 7011

Control of root maggots in swede turnips in Newfoundland with heptachlor and aldrin and the effect on parasites and overwintering pupae. 7039

Further studies on control of the clover root borer in Virginia. 7080

Small amounts of insecticides effective in controlling grubs of the Japanese beetle. 7105

Experiments on control of the sugar-beet wireworm in southern California bean fields. 7111



# SUBJECT INDEX

## AMINO-3,5,6-TRICHLOROPICINOLINIC ACID, 4-

- Chlorinated hydrocarbon insecticides as soil treatments against the eye gnat *Hippelates collusor* (Townsend) in the laboratory. 7576
- Persistence of DDT, aldrin, and lindane in some midwestern soils. 7672
- Epoxidation of aldrin and heptachlor in soils as influenced by autoclaving, moisture, and soil types. 7673
- ALEUTIAN DISEASE**
- Blood serum protein from mink with aleutian disease. 7185
- Experimental transmission of Aleutian disease of mink. 7210
- ALEUTIAN MINKS**
- Blood serum protein from mink with aleutian disease. 7185
- ALEYRODIDAE**
- North American species of *Aschersonia* parasitic on Aleyrodidae. 6464
- ALFALFA**
- Distance from the apiary as a factor in alfalfa pollination. 6461
- Potential use of Dylox and other insecticides in a control program for field crop pests in California. 6687
- Behavior of *Phoma herbarum* var. *medicaginis* on resistant and susceptible species of medicago. 6702
- A simple method of measuring rate of plant virus movement from inoculated tobacco leaves to stem tips. 6750
- Phytophthora root rot of alfalfa in Minnesota. 6751
- Infecting seven-day-old alfalfa seedlings with wilt bacteria through wounded Cotyledons. 6789
- A physiogenic leaf and stem spot of some forage legumes. 6790
- Vectors of alfalfa and bean yellow mosaic viruses in Ladino white clover. 6803
- Factors affecting growth, sporulation, pathogenicity, and dissemination of *Leptosphaerulina briosiana*. 6804
- An investigation of thermal inactivation of alfalfa mosaic virus. 6817
- Persistence of *Corynebacterium insidiosum* in soil. 6833
- Relation of decomposing plant residues to root growth of alfalfa. 6840
- Recognition of *Phymatotrichum* root rot of cotton and alfalfa in an aerial survey. 6858
- Spring black stem of alfalfa in relation to temperature, moisture, wounding, and nutrients and some observations on pathogen dissemination. 6866
- Stemphylium leafspot of *Echeveria*, *Kalanchoe*, and *Sedum*. 6916
- Infection of alfalfa by *Leptosphaerulina briosiana*. 6935
- Biological control of *Phytophthora* root rot of avocado with alfalfa meal. 6978
- Influence of plant age on the survival of alfalfa varieties differing in resistance to the spotted alfalfa aphid. 7018
- Spotted alfalfa aphid resistance in mature growth of alfalfa varieties. 7019
- A biotype of the spotted alfalfa aphid on alfalfa. 7046
- Effects of low temperature on the survival of the alfalfa weevil from Alberta and Utah. 7047
- A three-year overwintering study of the spotted alfalfa aphid. 7061
- Sampling alfalfa seed for clover seed chalcid damage. 7067
- Development of *Meloidogyne hapla* and *M. incognita* in alfalfa. 7086
- Evaluation of several techniques for screening alfalfa for resistance to *Ditylenchus dipsaci*. 7090
- Control of army cutworms in alfalfa during 1959. 7104
- Plant extracts, residues, and soil minerals in relation to competition of quackgrass (*Agropyron repens*) with oats and alfalfa. 7128
- Residues in established alfalfa treated with granulated phorate (Thimet) and their effect on cattle fed the hay. 7667
- Residues of malathion on alfalfa and in milk and meat. 7680
- Influence of oat and alfalfa residues on soil respiration, fungistasis, and survival of *Verticillium albo-atrum*. 7723
- ALGAE**
- Dispersal of viable algae and protozoa by horse flies and mosquitoes (Diptera, Tabanidae, Culicidae). 6616
- Oxygen balance in a stream receiving domestic and oil refinery effluents. 7655
- ALKENYLBENZYL**
- Pyrethrins and related compounds. ix. alkenbenzyl and benzylbenzyl chrysanthemates. 7690
- ALKYL-5-METHYL-4,6-DINITROPHENOLS, 2-**
- Structure and pesticidal activities of derivatives of dinitrophenols. iii. structure and acaricidal activity of certain carbonates of 2-alkyl-5-methyl-4,6-dinitrophenols and related compounds. 7696
- ALLETHRIN**
- Methods for the evaluation of stable fly toxicants and repellents. 7579
- ALTERNARIA**
- Inhibition of germination of spores of *Alternaria porri* f. sp. solani. 6874
- Effects of sodium fluoride on growth of some pathogenic fungi. 6943
- Inhibition of fungi by culture media previously exposed to light. 6954
- Relation of seed-borne fungi to boll rots of cotton. 6960
- The microbial hydrolysis of cellulose and some factors affecting the production of cellulase in a submerged culture of *Alternaria* sp. 7718
- AM. CYANAMID 12008**
- Insecticidal control of the Hessian fly. 6987
- AMIDES**
- Free amino acid and amide content of tobacco and oats infected by wildfire and halo blight bacteria. 6851
- AMINES**
- Control of *Penicillium* decay of oranges with certain volatile aliphatic amines. 6741
- AMINO ACIDS**
- Free amino acid and amide content of tobacco and oats infected by wildfire and halo blight bacteria. 6851
- Hostiparasite interaction in blackspot disease of roses caused by *Diplocarpon rosae* Wolf. 6886
- A qualitative comparison of the amino acid content of acid hydrolysates from the mycelium of cucurbit anthracnose fungi. 7732
- AMINO-3,5,6-TRICHLOROPICINOLINIC ACID, 4-**
- Herbicidal activity of vapors of 4-amino-3,5,6-trichloropicnic acid. 7123

# SUBJECT INDEX

- AMINO-3,5,6-TRICHLOROPICOLINIC ACID, 4-  
AMINO-3,5,6-TRICHLOROPICOLINIC ACID, 4-  
Bioassay methods for 4-amino-3,5,6-trichloropicolinic acid. 7742
- AMINOACRIDINE HCL, 9-  
The in vivo activity of several systemic insecticides against cattle grubs in South Dakota. 7582
- AMITROLE  
Chlorophyll formation in Euglena as a test for herbicides. 7129  
Translocation of C14-labeled compounds in cotton and oaks. 7708
- AMMONIA  
Control of Penicillium decay of oranges with certain volatile aliphatic amines. 6741
- AMPHIMALLON  
The flight range of the European chafer. 6453  
Virulence of species and strains of milky disease bacteria in the European chafer, Amphimallon majalis (Razoumowsky). 6648
- AMYLOIDOSIS  
Muscle necrosis and amyloidosis in the White Pekin duck. 7220
- AMYLOSES  
Preliminary evidence of resistance of high-amylose corn to the Angoumois grain moth. 7648
- ANABRUS SIMPLEX  
The free fatty acids and neutral lipids of the cuticular wax of the Mormon cricket, Anabrus simplex, Hald. 6605
- ANAPLASMA MARGINALE  
Base composition and thermal denaturation of DNA isolated from Anaplasma marginale. 7295  
ATPase activity of the erythrocytic membrane in anaplasmosis and of Anaplasma marginale. 7317
- ANAPLASMOSIS  
Anaplasmosis vaccine announced. 7168  
Ticks in the united states serve as vectors of disease. 7187  
Anaplasmosis complement-fixation response in calves. 7209  
Chlortetracycline for elimination of anaplasmosis in carrier cattle. 7311  
ATPase activity of the erythrocytic membrane in anaplasmosis and of Anaplasma marginale. 7317  
Anaplasmosis control preventing the introduction and spread in Anaplasmosis-free areas. 7387  
Problems of anaplasmosis control in tick-infested areas of the Northwest. 7474  
Problems of establishing anaplasmosis-free herds in Montana. 7491  
A successful anaplasmosis eradication program. 7552
- ANAPLASMOSIS VACCINES  
The preservation of Babesia bigemina, Anaplasma centrale and A. marginale by deep-freezing. 7239  
A vaccine for anaplasmosis. 7258
- ANASTREPBIA  
Susceptibility of life stages of the Mexican fruit fly to fumigation with ethylene chlorobromide. 6985
- ANCYLOSTOMATIDAE  
Thienum and piperazine combined, in the treatment of hookworm and roundworm infestation in the dog. 7599
- ANCYLOSTOMIASIS  
Pre-partum infestation of puppies with Ancylostoma caninum. 7603  
The treatment of ankylostomiasis and of spirocercosis in dogs by the new compound, 2,6-diiodo-4-nitrophenol. 7607
- ANDROMEDA  
Systemic insecticides for control of scales, leaf miners, and lace bugs. 7059
- ANEMIA  
Common problems in the pig. 7144  
Response of cows and calves to a Psittacosis-Lympho-granuloma group agents. 7186  
Haemoglobinaemia of cattle associated with the feeding of Brassicae species. 7272  
Iron deficiency anemia as a cause of stillbirths in swine. 7437  
Observations on the blood picture of cattle, sheep and rabbits fed on kale. 7458
- ANESTHESIA  
A report on the dosage of pentobarbitone sodium required to induce anaesthesia in ferrets. 7440
- ANEURYSMS  
The incidence of spontaneous pathologic changes in aortas of growing turkeys. 7138
- ANGUINA  
Biological studies of a new species of Anguina (Nematoda0 Tylenchidae) parasitic on Plantago aristata Michx. 7115
- ANGULAR LEAFSPOT (COTTON)  
Internally infected seed as a source of inoculum for the primary cycle of bacterial blight of cotton. 6712
- ANIMAL ABNORMALITIES  
Elbow dysplasia in the German Shepherd dog. 7277
- ANIMAL DISEASE RESISTANCE  
Susceptibility to hog cholera may be related to breed. 7179
- ANIMAL DISEASE TRANSMISSION  
Rift valley fever in lambs and sheep. 7206  
Anaplasmosis complement-fixation response in calves. 7209  
Experimental transmission of Aleutian disease of mink. 7210  
Transmission of equine piroplasmiasis by Dermacentor nitens Neumann. 7483  
Swine ascarids infect cattle. 7589
- ANIMAL DISEASES  
Disease on a large scale. 7150  
Mycotoxicosis and animal disease. 7152  
Sixth international symposium on diseases of zoo animals. 7158  
Suspected myasthenia gravis in a dog. 7336  
To veterinary surgeons in equine practice Survey of uterine infections. 7430  
Uterine infections in mares--1964 survey. 7432
- ANIMAL GENETICS  
Elbow dysplasia in the German Shepherd dog. 7277
- ANIMAL MEMBRANES  
Use of an animal membrane in the evaluation of chemical repellents against the stable fly. 7568
- ANIMAL NUTRITION  
Calcium requirements of turkey breeder hens. 7135  
Salmonella problem receives primary attention at AVMA council meeting. 7170  
Toxicity of copper sulfate in beef cattle. 7199  
Salmonellosis in the dog. 7221  
Infectious bovine rhinotracheitis abortion and its relationship to nutrition in California beef cattle. 7278



# SUBJECT INDEX

## ANTIBIOTICS

- Effect of feeding various levels *Crotalaria spectabilis* seed on the performance of chicks, turkeys, and pullets. 7342
- Malformed calf syndrome on Kodiak Island, Alaska. 7394
- Feline dermatology. 7439
- Diagnosis and causes of nitrate poisoning. 7513
- Nutritional and biochemical aspects of arabinose and xylose for chicks. 7539
- Economic importance of the chicken body louse. 7585
- Pesticide residues in poultry samples, USDA study shows. 7659
- Heptachlor residues on corn stover in relation to dairy cattle feeding. 7670
- ANIMAL VECTORS**
- Skunks and cows are rabies threat in Iowa. 7172
- Brush technique for detection of fungal diseases. 7327
- Tuberculosis in deer. 7421
- Salmonellosis in animals threatens man. 7467
- Salmonellosis, a pet-implicated zoonosis. 7527
- New investigations on cold-blooded animals as *Salmonella* sources. 7546
- Haemophilus gallinarum - Intraflock spread. 7559
- ANIMALS**
- An outbreak of acute disease in Chester Zoo diagnosed as anthrax. 7385
- Diphenoxylate a useful drug in the symptomatic treatment of acute and chronic diarrhoea in domestic and wild animals. 7414
- Pesticides and animal poisoning. 7497
- ANOPELES**
- Toxicological action of DDT on three species of mosquito larvae. 6658
- Colonization and production of a dieldrin-resistant strain of *Anopheles gambiae* say. 6677
- ANOPELES ATROPARVUS**
- Behavioral responses to contact with DDT in *Anopheles atroparvus*. 6531
- ANOPLURA**
- Preliminary biological observations on *Linognathus africanus* Kellogg and Paine with a description of the first instar nymph (*Haematopiniidae*, *Anoplura*). 6482
- Cattle lice eradication studies- A-3-year evaluation. 7230
- Laboratory and field tests against mites and lice attacking poultry. 7562
- The malathion dust-bath for control of five species of lice on chickens. 7581
- ANTARCTICA**
- Organochlorine pesticides in Antarctica. 7684
- ANTHELMINTICS**
- Thiabendazole as an anthelmintic in cattle and sheep. 7588
- The anthelmintic activity of a phenothiazine-phenidole mixture compared with that of thiabendazole in lambs in Kenya. 7595
- An experimental investigation into the use of methyridine as an anthelmintic for cats. 7602
- Thiabendazole as an anthelmintic in research monkeys. 7606
- Experience with an anthelmintic. 7613
- The anthelmintic efficiency of Haloxon against the adult and immature stages of the gastro-intestinal strongyles of Nigerian Zebu cattle. 7614
- Dimetridazole part II. Therapeutic activity and toxicity in the treatment of experimental histomoniasis in turkeys. 7619
- Methyridine in the control of intestinal capillariasis in birds. 7637
- A taenicide for dogs and cats. 7639
- The anthelmintic activity of methyridine by intraperitoneal injection in sheep and cattle. 7640
- ANTHOCORIS ANTEVOLENS**
- An artificial ovipositional site for some Heteroptera that insert their eggs into plant tissue. 6627
- ANTHOCYANINS**
- Inhibition of enzymes by the anthocyanin malvidin-3-monoglucoside. 7730
- ANTHONOMUS GRANDIS**
- A seasonal study of diapause, reproductive activity and seasonal tolerance to insecticides in the boll weevil. 6496
- Boll weevil susceptibility to toxaphene, endrin, and Guthion in five Alabama localities. 6505
- Bacteria and fungi associated with dead boll weevils (*Anthonomus grandis*) in a natural population. 6589
- Some effects of age, preimaginal habitat, and adult food on susceptibility of boll weevil to certain insecticides. 6983
- The effectiveness of chlorinated hydrocarbon insecticide mixtures for control of resistant and susceptible boll weevils. 6986
- Cotton insects in Nicaragua. 7036
- Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958. 7042
- Laboratory studies on the effectiveness of Chipman R-6199 against some cotton pests. 7070
- Control of boll weevils resistant to chlorinated hydrocarbons. 7074
- ANTHRACNOSE (COTTON)**
- Susceptibility of *Gossypium arboreum* and *Gossypium hirsutum* to seedling anthracnose. 6710
- ANTHRACNOSE (CUCURBITA)**
- Mycelial protein comparisons of isolates of cucurbit anthracnose fungi. 6808
- Production of pectinolytic and cellulolytic enzymes by cucurbit anthracnose fungi. 6968
- A qualitative comparison of the amino acid content of acid hydrolysates from the mycelium of cucurbit anthracnose fungi. 7732
- ANTHRAX**
- Suspected anthrax in a bitch. 7223
- An outbreak of acute disease in Chester Zoo diagnosed as anthrax. 7385
- Anthrax vaccination. 7402
- Anthrax in Chester Zoo. 7506
- ANTIBIOTICS**
- Growth and survival of the pathogen causing russet scab on potatoes. 6709
- On the fungistatic and fungicidal properties of an antibiotic produced by *Penicillium roqueforti*. 6791
- Disinfection of tomato seed infested with *Xanthomonas vesicatoria*. 6797

# SUBJECT INDEX

## ANTIBODIES

- A toxic metabolite from *Ascochyta fabae* having antibiotic activity. 6841
- Antibiotic production by *Streptomyces* sp. in corn rhizosphere. 6864
- Studies on the dietary requirement and interaction of magnesium with antibiotics in turkeys to 4 weeks of age. 7141
- Possible hazards in the veterinary use of antibiotics with particular reference to their use as food additives. 7146
- Antibiotics in milk--Postponement of M.B.B. reduced price scheme. 7154
- Antibiotics in slow- and quick-release bases. 7256
- The effect of Tylosin against experimental and natural infection with *Mycoplasma* in goats. 7294
- The influence of physical form of roughages and antibiotic administration on performance, carcass characteristics, health, of the rumen epithelium, rumen volatile fatty acids and liver abscesses of steers fed all-concentrate rations. 7347
- The control of an outbreak of *Salmonella dublin* in calves. 7401
- Salmonella* resistance increases. 7424
- Prophylactic use of Framycetin sulphate in calves. 7442
- Advertisements, antibiotics and mastitis. 7524

## ANTIBODIES

- Progressive distribution of southern bean mosaic virus antigen in bean leaves determined with a fluorescent antibody stain. 6969
- Cockers and labradors more resistant to distemper. 7197
- Detection of antibodies to *Staphylococcus aureus* in cattle. 7201
- Response of rabbits and guinea pigs to vesicular stomatitis virus. 7217
- The occurrence and distribution in the United Kingdom of antibodies to parainfluenza 3 and infectious bovine rhinotracheitis viruses in bovine sera. 7282
- Effect of revaccination on distemper antibody levels. 7368
- Diagnosis antigens for the detection of nocardiosis in animals. 7460

## ANTIBODY-COATED ERYTHROCYTES

- Hemagglutination test for diagnosis of hog cholera. 7196

## ANTIDOTES

- Antidote for tannic acid poisoning in rabbits. 7191
- Antidote for tannic acid poisoning in rabbits. 7208

## ANTIGENS

- Common antigens in *Xanthomonas malvacearum* and *Gossypium hirsutum* and their possible relationship to host specificity and disease resistance. 6891
- Bentonite flocculation a rapid, sensitive serological test for the detection of plant virus antigens. 6897
- Progressive distribution of southern bean mosaic virus antigen in bean leaves determined with a fluorescent antibody stain. 6969
- Foot-and-mouth disease vaccine-production of antigen in culture. 7177
- Diagnosis antigens for the detection of nocardiosis in animals. 7460

## ANTIMETABOLITES

- Mortality and fertility response of *Musca domestica* Linnaeus to certain known mutagenic or anti-tumor agents. 6566

## ANTIOXIDANTS

- Plant polyphenols as antioxidants for ascorbic acid. 7707

## ANTIRRHINUM

- A visit to M. W. Beijerinck at his home laboratory in december, 1925. 6763

## ANTISEPTICS

- Disinfection of tomato seed infested with *Xanthomonas vesicatoria*. 6797

## ANURAPHIS

- Vectors of alfalfa and bean yellow mosaic viruses in Ladino white clover. 6803

## ANURAPHIS HELICHRYSI

- Evaluation of commonly used insecticides for the control of peach curl aphid, *Anuraphis helichrysi* Kalt. 6996

## AORTA

- Neurosecretory system of Heteroptera (Hemiptera) and a role of the aorta as a neurohaemal organ. 6520
- The incidence of spontaneous pathologic changes in aortas of growing turkeys. 7138
- Potential of diethylstilbestrol induced aortic ruptures of turkeys with thiouracil. 7509

## APANTELES

- The bean leaf skeletonizer, *Autoplusia egea*, and its control on bush snap beans in the everglades. 7006

## APHANOMYCES

- Physiology of asexual reproduction in *Aphanomyces euteiches*. 7743

## APHIDIDAE

- Morphological and physiological distinction between two populations of the peach-potato aphid. 6523
- Flow relationships for hemipterous stylets. 6593
- Biology and evaluation of certain predators of *Therioaphis maculata* (Buckton). 6628
- Beet ring mottle disease. 6738
- Transmission of bean mosaic virus in relation to length of probes by aphids allowed either one or several acquisition probes. 6980
- The effect of phorate applied to seed on the growth, development and insects attacking grain sorghum. 7005
- Effectiveness of insecticides against the European corn borer and green peach aphid on peppers. 7017
- Response of different strains of the green peach aphid to malathion. 7060
- The use of phorate to control aphids and the Hessian fly on winter wheat. 7078

## APHIDIUS SMITHI

- Laboratory studies on the rearing of *Aphidius smithi* (Hymenoptera, Braconidae) and its parasitism of *Acythosiphon pisum* (Homoptera, Aphididae). 6528

## APIARIES

- Distance from the apiary as a factor in alfalfa pollination. 6461

## APIS MELLIFERA

- The effect of infestation with *Acarapis woodi* (Rennie) on the mortality of honey bees. 6447
- The incidence of virus diseases in honey bees. 6448
- Distance from the apiary as a factor in alfalfa pollination. 6461
- The natural mechanism of suppression of *Nosema apis* Zander in enzootically infected colonies of the honey bee, *Apis mellifera* Linnaeus. 6483
- An improved method for the isolation of *Streptococcus pluton*, and observations on its distribution and ecology. 6484



# SUBJECT INDEX

## ARTICHOKES

- Mortality of the honey bee, *Apis mellifera*, in colonies treated with certain biological insecticides. 6508
- The influence of environmental and nutritional factors on growth and caste determination of female honey bees. 6519
- The effect of foraging behavior of moving honey bee colonies to crops before or after flowering has begun. 6529
- Amoeba disease of the honey bee, *Apis mellifera* Linnaeus, and an attempt at its chemical control. 6533
- Flagellated protozoa (*Trypanosomidae*) in the honey bee, *Apis mellifera*, in Australia. 6573
- Pollination of red clover in Minnesota. 6611
- A conopid fly parasite found in the honey bee. 6617
- Surveys for nosema disease of honey bees in California. 7021
- APLOPAPPUS HETEROPHYLLUS**  
An investigation of the toxic plant - rayless goldenrod (*Aplopappus heterophyllus*). 7703
- APPLE TREES**  
Soil injection as a means of applying systemic acaricides to fruit trees. 6997
- APPLES**  
Prevalence of *Erwinia amylovora* in apple buds as detected by phage typing. 6701
- The flat apple disease. 6729
- Antifungal phenolic acids in apple fruits after infection with *Sclerotinia fructigena*. 6746
- Approach graft transmission of Tulare apple mosaic virus between apple and *Gomphrena globosa*. 6753
- Chemotherapy of the apple scab disease with butyric acid derivatives. 6801
- Some biochemical changes associated with virus infection in apple. 6820
- Properties of tulare apple mosaic virus. 6821
- The effect of dapple apple and stem pitting on apple tree growth and yields in New Hampshire over a fourteen-year period. 6868
- Venturia inaequalis* (Cke.) Wint. xvi. amino acids in relation to pathogenicity of two wild-type lines to two apple varieties. 6962
- Control of the woolly apple aphid on roots of apple nursery stock. 7011
- Control of pear borer and American plum borer in apple trees. 7024
- Effects of soil insecticides on apple trees and resulting effect on mite nutrition. 7053
- Measuring the surface area of apples for expression of pesticide residues. 7666
- APRICOTS**  
The inactivation of *Verticillium albo-atrum* in apricot trees. 6938
- Control of the grape mealybug on apricots. 7030
- Thiodan, a promising chemical for control of the lesser peach tree borer. 7038
- APSYLLA CISTELLATA**  
New record of the occurrence of mango shoot-gall disease in the Upper Indo-Gangetic Plain. 6921
- AQUATIC ANIMALS**  
The toxicology of thiodan in several fish and aquatic invertebrates. 7697
- AQUATIC INSECTS**  
A limnological investigation of the Aufwuchs community in two mainstem Missouri River reservoirs. 6451
- The aquatic and semi-aquatic Hemiptera of Oklahoma. the Lygaeidae of Oklahoma (Hemiptera). 6468
- Taxonomy and biology of the subfamily Berosinae of North and Central America and the West Indies (Coleoptera: Hydrophilidae). 6471
- Effects of an aerial DDT spray on aquatic insects in Connecticut. 7016
- ARABINOSE, L-**  
Nutritional and biochemical aspects of arabinose and xylose for chicks. 7539
- ARACHIS HYPOGAEA**  
Two new species of parasites reared from *Stomopteryx nertea* (Hymenoptera) (Lepidoptera, Gelechiidae). 6615
- ARACHNOIDISM**  
*Loxosceles reclusa* in southern California. 6472
- ARAMITE**  
Selection response and genetics of parathion resistance in the Pacific spider mite, *Tetranychus pacificus*. 6667
- Field control of cotton mites with Aramite aerial spray in California. 6998
- Control of *Myocoptes musculus* on guinea pigs. 7583
- ARANEIDAE**  
Karyological studies on the Indian spiders. vi. chromosome number and sex-determining mechanism in the family Araneidae). 6675
- ARCEUTHOBium**  
Some characteristics of dwarf mistletoe populations on red fir. 6850
- ARHYSSUS**  
The higher classification of the family Rhopalidae (Hemiptera) together with a revision of the genus Arhyssus Stal (Rhopalidae: Hemiptera). 6450
- ARIZONA**  
Salt-marsh caterpillar control on cotton in Arizona. 7118
- ARKANSAS**  
Serological relationship between bean pod mottle virus and cowpea mosaic viruses from Arkansas and Trinidad. 6906
- ARMILLARIA**  
Inhibition of fungi by culture media previously exposed to light. 6954
- ARRHENODES**  
Biology of the oak timberworm, *Arrhenodes minutus*. 7085
- ARSENIC**  
Arsenical poisoning of race horses. 7252
- Arsenical poisoning of racehorses. 7279
- Arsenical poisoning of racehorses. 7523
- ARTHRITIS**  
Polyarthritis and epiphyseolysis of pigs in England. 7290
- ARTHROBACTER**  
Decomposition of 2,4-D and related phenoxyacetic acids by an *Arthrobacter* species. 7658
- ARTHROPODA**  
A sampling technique for estimating populations of small arthropods in soil and vegetation. 6455
- Potential use of Dylox and other insecticides in a control program for field crop pests in California. 6687
- The influence of seasonal DDT applications upon arthropod populations in jack pine stands. 7056
- ARTICHOKES**  
Starvation tests with larvae of the cinnabar moth. 7043

# SUBJECT INDEX

## ARTIFICIAL INSEMINATION

### ARTIFICIAL INSEMINATION

The effect of intraspecific and interspecific insemination on fecundity in *Drosophila melanogaster* and *Drosophila bipectinata*. 6601

### ASCARIASIS

Pig diseases in the Rhodesias. 7241

### ASCARIS

Swine ascarids infect cattle. 7589

Thienium and piperazine combined, in the treatment of hookworm and roundworm infestation in the dog. 7599

### ASCOCHYTA

A toxic metabolite from *Ascochyta fabae* having antibiotic activity. 6841

### ASCORBIC ACID

Suspected skeletal scurvy in the dog. 7360

Suspected skeletal scurvy in the dog. 7464

Suspected skeletal scurvy in a dog. 7490

Plant polyphenols as antioxidants for ascorbic acid. 7707

### ASCOSPORE

Studies on ascospore production by *Mycosphaerella musicola* in Honduras. 6930

### ASEXUAL REPRODUCTION

Physiology of asexual reproduction in *Aphanomyces euteiches*. 7743

### ASPARAGUS RACEMOSUS

Effect of root extract of *Asparagus racemosus* and *Tagetes erecta* on hatching of eggs of *Meloidogyne javanica* and *Meloidogyne arenaria*. 7113

### ASPERGILLOSIS

Pulmonary aspergillosis in a cow. 7435

### ASPERGILLUS

Fungi attacking seeds in dry seed-beds. 6759

Influence of light on growth of *Aspergillus restrictus* in agar culture. 6957

Relation of seed-borne fungi to boll rots of cotton. 6960

Xanthomatosis in laying hens - a case report. 7391

Pulmonary aspergillosis in a cow. 7435

Development of granary weevils and storage fungi in columns of wheat- II. 7643

### ASPERGILLUS AWAMORI

Asperyllone, a new yellow pigment of *Aspergillus awamori* and *Aspergillus niger*. II. The chemical structure of asperyllone. 7733

### ASPERGILLUS CANDIDUS

The mode of action of diphenamid (N, N-dimethyl 2, 2-diphenylacetamide) in plants. 7126

### ASPERGILLUS FLAVUS

Factors affecting invasion of grains and seeds by *Aspergillus flavus* and effects of the fungus on germination of the seeds. 7644

Effects of relative humidity and temperature on the degradation of peanut sugar and oil by *Aspergillus flavus*. 7714

### ASPERGILLUS NIGER

Asperyllone, a new yellow pigment of *Aspergillus awamori* and *Aspergillus niger*. II. The chemical structure of asperyllone. 7733

### ASPERYELLONE

Asperyllone, a new yellow pigment of *Aspergillus awamori* and *Aspergillus niger*. II. The chemical structure of asperyllone. 7733

### ASSAY

Streptomycin resistance -- a technique for the direct assay of potato scab organisms from soil. 6953

Rapid plant virus assay combines density-gradient

centrifugation and Ouchterlony agar diffusion serological tests. 7712

### ASTER YELLOWS (CALLISTEPHUS CHINENSIS)

Recovery of aster yellows from excised organs of insect vectors. 6770

### ASTEROLECANIUM

Systemic insecticides for control of scales, leaf miners, and lace bugs. 7059

### ASTERS

Starvation tests with larvae of the cinnabar moth. 7043

### ATRAZINE

Influence of tillage, row spacing, and atrazine on sorghum and weed yields from nonirrigated sorghum across Nebraska. 7120

An evaluation of atrazine, simazine, monuron and diuron on ten Hawaiian sugar cane plantations. 7132

Some factors that influence the deactivation of atrazine in soil. 7654

The effect of oils on herbicidal activity of atrazine and linuron and of waxes and oils on the movement of EPTC in soil. 7657

### AUTOCLAVES

Epoxidation of aldrin and heptachlor in soils as influenced by autoclaving, moisture, and soil types. 7673

### AUTOPSIES

The enteropathogenic effect of *Escherichia coli* in rabbits and pigs. 7324

### AUTORADIOGRAPHY

Incorporation of radioactive Uridine into the RNA of the lepidopteran *Barathra brassicae*. 6599

Cytological and autoradiographic studies on *Sciara coprophila* salivary gland chromosomes. 6671

### AVIAN LYMPHOMATOSIS

Chemical changes in nerves from birds affected by fowl paralysis. 7351

### AVIAN NEPHROSIS

Pattern of mortality in avian nephrosis. 7454

### AVITAMINOSIS

Bracken poisoning of farm animals. 7300

Unusual cerebellar conditions in pigs. Part 1. Cerebellar herniation associated with vitamin A deficiency. 7326

### AVOCADOS

Biological control of *Phytophthora* root rot of avocado with alfalfa meal. 6978

### AZALEA

Systemic insecticides for control of scales, leaf miners, and lace bugs. 7059

### AZIMPHOSMETHYL

A seasonal study of diapause, reproductive activity and seasonal tolerance to insecticides in the boll weevil. 6496

Boll weevil susceptibility to toxaphene, endrin, and Guthion in five Alabama localities. 6505

Some effects of age, preimaginal habitat, and adult food on susceptibility of boll weevil to certain insecticides. 6983

Laboratory studies on the toxicity of various insecticides to different stages of the oriental fruit moth. 6988

Influence of timing and insect biology on the effectiveness of insecticides applied for control of European pine shoot moth, *Rhyacionia buoliana*. 6991

Field testing of insecticides for control of the Nantucket pine moth, *Rhyacionia frustrana*, and the European pine shoot moth, *R. buoliana*. 7001

Evaluation of chemicals for control of a spider mite complex on cherry and peach. 7003



# SUBJECT INDEX

- Evaluation of insecticides for control of the Fuller rose beetle on citrus in California. 7004
- Hyperodes humilis*, a new pest of sweet corn in the everglades, and its control. 7013
- Effectiveness of insecticides against the European corn borer and green peach aphid on peppers. 7017
- Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958. 7042
- Plum curculio* control experiments in 1955-58. 7062
- A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn. 7084
- AZTEC TOBACCO**  
Some effects of supplying benzyladamine to leaves and plants inoculated with viruses. 6695
- BABY PIGS**  
A simple test for deprivation of colostrum in piglets. 7292
- House fly control in pig parlors. 7566
- BACILLUS**  
Infection inhibition and germ-tube lysis of three cereal rusts by *Bacillus pumilus*. 6827
- Anthrax vaccination. 7402
- The effect of 2 hepta-5-methylbenzimidazole and hydrochloric acid on the growth of microflora found on poultry carcasses. 7652
- BACILLUS THURINGIENSIS**  
The utilization of *Bacillus thuringiensis* Berliner as a biotic insecticide to suppress the alfalfa caterpillar. 6640
- The bean leaf skeletonizer, *Autoplusia egea*, and its control on bush snap beans in the everglades. 7006
- Effectiveness of insecticides against the European corn borer and green peach aphid on peppers. 7017
- BACTERIA**  
The occurrence of species of the genus *Brevibacterium* in insects. 6463
- Nosema laphymae* n. sp. and the internal structure of the microsporidian spore. 6473
- Separation of bacterial spores and parasporal bodies with a fluorocarbon. 6480
- An improved method for the isolation of *Streptococcus pluton*, and observations on its distribution and ecology. 6484
- On the in-vitro culture of intracellular symbiotes of cockroaches. 6497
- Bacteria of grasshoppers of western Canada III. Frequency of occurrence, pathogenicity. 6499
- Bacteria of grasshoppers of western Canada I. The enterobacteriaceae. 6501
- Bacteria of grasshoppers of western Canada II. The Pseudomonadaceae, Achromobacteraceae, Micrococcaceae, Brevibacteriaceae, Lactobacillaceae, and less important families. 6503
- The bacterium *Coccobacillus acridiorum* d Herelle Its taxonomic position and status as a pathogen of locusts and grasshoppers. 6504
- Inactivation by irradiation of spores of *Bacillus thuringiensis* var. *thuringiensis*. 6506
- Silicon content of the paraspora crystal of several crystalliferous bacteria. 6527
- Preliminary report on the larval development of the horn fly, *Haematobia irritans*, in feces from cattle given fractions of a commercial preparation of *Bacillus thuringiensis*. 6532
- The susceptibility of the house fly, *Musca domestica* Linnaeus, to *Bacillus thuringiensis* var. *thuringiensis* Berliner. 6539
- The site of action of crystalliferous bacteria in *Legidoptera* larvae. 6543
- A microsporidian, *Thelohania* sp., in *Pieris rapae*. 6571
- Variations in total hemocyte counts as induced by a nosemosis in the cabbage looper, *Trichoplusia ni*. 6572
- Preliminary laboratory results on the susceptibility of *Aedes aegypti* (Linnaeus) to *Bacillus thuringiensis* Berliner. 6575
- The relation between oxygen consumption and bacterial infection in sawflies. 6580
- Bacteria and fungi associated with dead boll weevils (*Anthonomus grandis*) in a natural population. 6589
- A simplified purification technique for parasporal inclusions from certain varieties of *Bacillus thuringiensis*. 6600
- The utilization of *Bacillus thuringiensis* Berliner as a biotic insecticide to suppress the alfalfa caterpillar. 6640
- Mobile streptococci from the desert locust, *Schistocerca gregaria*. 6641
- The normal bacterial flora of the alimentary canal of laboratory stocks of the desert locust, *Schistocerca gregaria* Forskal. 6643
- Epizootiology of a disease of the desert locust, *Schistocerca gregaria* (Forsk.) caused by nonchromogenic strains of *Serratia marcescens* Bizio. 6644
- A visit to M. W. Beijerinck at his home laboratory in december, 1925. 6763
- Hog cholera Breaks influenced by bacterial infection. 7219
- Clostridium chavoei* common in normal adult dogs. 7222
- A new penicillin. 7261
- The effect of staphylococcal toxins on ruminant erythrocytes treated with diffusible substances formed by corynebacteria. 7312
- The pathogenesis of gastro-enteritis associated with *Escherichia coli*. 7333
- Factors influencing the survival of coliforms in the dust of deep litter houses. 7344
- Bacterial gastro-enteritis outbreaks in cats. 7374
- Microbiological studies on a new penicillin, BRL 1621. 7382
- Bacterial gastro-enteritis in cats. 7400
- The pathogenesis of gastro-enteritis associated with *Escherichia coli*. 7526
- The microbiological contamination of egg shells and egg packing materials. 7651
- The effect of food grade polyphosphates on the microbial population of chicken meat. 7653
- BACTERIAL BLIGHT (SOYBEANS)**  
Variability in pathogenicity in the bacterial blight pathogen of soybeans. 6731
- BACTERIAL CANKER (PEACHES)**  
Transmission of *Pseudomonas syringae* in peach trees by bud propagation. 6736

# SUBJECT INDEX

## BACTERIAL DISEASES (ANIMALS)

### BACTERIAL DISEASES (ANIMALS)

- Newer knowledge of ovine vibriosis. 7310
- Diagnosis antigens for the detection of nocardiosis in animals. 7460

### BACTERIAL DISEASES (PLANTS)

- Sources of resistance to halo blight in *Phaseolus vulgaris*. 6698
- Variability in pathogenicity in the bacterial blight pathogen of soybeans. 6731
- Transmission of *Pseudomonas syringae* in peach trees by bud propagation. 6736
- Bacterial spot of ivy caused by *Xanthomonas hederae* (Arnaud, 1920, Dowson 1939, in New Zealand. 6740
- Effect of organic phosphorous pesticides on certain phytopathogenic bacteria. 6743
- An evaluation of *Solanum nigrum* and *Physalis minima* as suspects of *Xanthomonas vesicatoria*. 6792

### BACTERIAL SOFT ROT (IRIS)

- Relation of the iris borer to bacterial soft rot of iris. 6774

### BACTERIAL SPOT (IVY)

- Bacterial spot of ivy caused by *Xanthomonas hederae* (Arnaud, 1920, Dowson 1939, in New Zealand. 6740

### BACTERIAL SPCT (PEACHES)

- Control of peach bacterial spot with *Xanthomonas pruni* bacteriophage. 6730

### BACTERIAL SPOT (PHYSALIS MINIMA)

- An evaluation of *Solanum nigrum* and *Physalis minima* as suspects of *Xanthomonas vesicatoria*. 6792

### BACTERIAL SPCT (REDPEPPERS)

- Inheritance of resistance in pepper to bacterial spot. 6725

### BACTERIAL SPCT (SOLANUM NIGRUM)

- An evaluation of *Solanum nigrum* and *Physalis minima* as suspects of *Xanthomonas vesicatoria*. 6792

### BACTERIAL SPOT (TOMATOES)

- Survival of *Xanthomonas vesicatoria* in soil and diseased tomato plants. 6854

### BACTERIAL WILT (ALFALFA)

- Infecting seven-day-old alfalfa seedlings with wilt bacteria through wounded cotyledons. 6789
- Persistence of *Corynebacterium insidiosum* in soil. 6833

### BACTERIAL WILT (STRELTZIA)

- Bacterial wilt of bird-of-paradise caused by *Pseudomonas solanacearum*. 6863

### BACTERICIDES

- Effect of organic phosphorous pesticides on certain phytopathogenic bacteria. 6743
- Bairy root (*Agrobacterium rhizogenes*) of field roses. 6829
- Comparative bactericidal properties of N-polyhaloethylthio hydantoins. 7737

### BACTERIINS

- Effect of pasteurized bacterin on mortality and pneumonia in lambs. 7339

### BACTERIOLOGY

- Multiplication of *Xanthomonas vesicatoria* on tomato seedlings. 6796

### BACTERIOPHAGES

- Prevalence of *Erwinia amylovora* in apple buds as detected by phage typing. 6701
- Phage typing of *Staphylococcus aureus*. 7169
- Apparent canine distemper caused by *Klebsiella* organisms. 7452

### BAITS

- A systemic insecticide and bait for flea and rat control. 7561
- Insecticidal baits for control of the imported fire ant, *Solenopsis saevissima richteri*. 7571

### BANANAS

- Studies on ascospore production by *Mycosphaerella musicola* in Honduras. 6930
- Comparative anatomical study of leaves of young and mature banana plants in relation to the morphology of *Cercospora musae* lesions. 7720

### BARATERRA

- Incorporation of radioactive Uridine into the RNA of the lepidopteran *Barathra brassicae*. 6599

### BARLEY

- Effects of barley yellow dwarf virus on yield of oats as influenced by variety, virus strain, and developmental stage of plants at inoculation. 6744
- Studies on the nature of barley resistance to *Helminthosporium teres*. 6780
- Heterothallism in *Pyrenophora teres*. 6809
- Relationship of genes conditioning pathogenicity of *Erysiphe graminis* f. sp. *hordei* on barley. 6828
- Relationship of the genes conditioning resistance to *Erysiphe graminis* f. sp. *hordei* in some varieties of barley used to differentiate races of this pathogen. 6856

### BARTHRIN

- Comparative value of some synthetic compounds as synergists with barthrin in house fly sprays. 6680
- Laboratory and field tests against mites and lice attacking poultry. 7562

### BASEBOARDS

- House fly pupation under baseboards. 7575

### BASIC SLAG

- Basic slag toxicity in cattle and sheep. 7280

### BASIDIOMYCELES

- Autumn and winter sporulation by basidiocarps of *Pomes annosus*. 6871

### BAYER 22408

- Control of the grape leaf folder in California. 7064

### BAYER 23453

- Selective toxicity and animal systemic effectiveness of several organophosphates. 7563

### BAYER 24498

- Selective toxicity and animal systemic effectiveness of several organophosphates. 7563

### BAYER 25198

- Selective toxicity and animal systemic effectiveness of several organophosphates. 7563

### BEAGLE DOGS

- Cockers and labradors more resistant to distemper. 7197

### BEAK

- Some congenital abnormalities in the beaks and skulls of wildfowl. 7343

### BEANS

- Sources of resistance to halo blight in *Phaseolus vulgaris*. 6698
- Influence of host and nonhost plants upon populations of *Thielaviopsis basicola* in soil. 6704
- Chitin-lignin amendments for control of bean root rot. 6807
- Microbial antagonism in bean rhizosphere as affected by oat straw and supplemental nitrogen. 6847
- Effects of oat straw and supplemental nitrogen on microbial antagonism in bean rhizosphere. 6848



## SUBJECT INDEX

## BIOLOGICAL ASSAY

- Comparisons of pea enation mosaic virus isolates. 6878
- Changes in multiple molecular enzymes in rusted bean leaves. 6923
- Progressive distribution of southern bean mosaic virus antigen in bean leaves determined with a fluorescent antibody stain. 6969
- Heat activation of different strains of tobacco mosaic virus infection on varieties of beans (*Phaseolus vulgaris*). 6970
- Heat therapy of bean rust. 6974
- Predisposition to powdery mildew. 6975
- Transmission of bean mosaic virus in relation to length of probes by aphids allowed either one or several acquisition probes. 6980
- The bean leaf skeletonizer, *Autoplius egea*, and its control on bush snap beans in the everglades. 7006
- Effectiveness of insecticides against the European corn borer and green peach aphid on peppers. 7017
- Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition. 7054
- Nicotine residues in field-treated cauliflower, celery, green beans, kale, mustard greens and spinach. 7661
- Malathion residues on and in the leaves of *Phaseolus vulgaris*. 7674
- The macerating enzyme of *Rhizoctonia solani*. 7701
- Metabolism of methylcarbamate insecticide chemicals in plants. 7717
- Bioassay methods for 4-amino-3,5,6-trichloropicolinic acid. 7742
- BEE DISEASES**
- The incidence of virus diseases in honey bees. 6448
- The natural mechanism of suppression of *Nosema apis* Zander in enzootically infected colonies of the honey bee, *Apis mellifera* Linnaeus. 6483
- Amoeba disease of the honey bee, *Apis mellifera* Linnaeus, and an attempt at its chemical control. 6533
- The toxicity of extracts from foulbrood scale residues for honey-bee larvae maintained in-vitro. 6609
- A conopid fly parasite found in the honey bee. 6617
- BEEF CATTLE**
- Gastrointestinal nematodes in beef yearlings. 7215
- The influence of physical form of roughages and antibiotic administration on performance, carcass characteristics, health, of the rumen epithelium, rumen volatile fatty acids and liver abscesses of steers fed all-concentrate rations. 7347
- A study of the effects of various hormone treatments on the reproductive activity of prepuberal and post-puberal beef heifers and lactating beef cows. 7528
- BEES**
- Nests and social behavior of halictine bees of India (*Hymenoptera*, *Halictidae*). 6486
- BEETS**
- Moisture sensitivity, mechanical injury and gibberellin treatment of *Beta vulgaris* seeds. 6721
- Beet ring mottle disease. 6738
- The beet armyworm, *Spodoptera exigua*, an economic pest of citrus in California. 6982
- Influence of soil and moisture on the beet webworm, *Loxostege sticticalis*, and its parasites. 7112
- BELLIS**
- Starvation tests with larvae of the cinnabar moth. 7043
- BELONOLAIMUS**
- A comparison of *Fusarium* wilt indices of cotton varieties with root-knot and sting nematodes as predisposing agents. 6727
- BEMISIA TABACI**
- Inter-relationship between whitefly (*Bemisia tabaci* Gien) population and the incidence of leaf curl in bidi tobacco (*Nicotiana tabacum* L) in relation to different planting dates. 7044
- BENTONITE**
- Bentonite flocculation a rapid, sensitive serological test for the detection of plant virus antigens. 6897
- BENZENE HEXACHLORIDE**
- Some effects of age, preimaginal habitat, and adult food on susceptibility of boll weevil to certain insecticides. 6983
- Toxicity of BHC to loblolly pine seedlings. 7068
- Further studies on control of the clover root borer in Virginia. 7080
- Small amounts of insecticides effective in controlling grubs of the Japanese beetle. 7105
- Toxic chemicals. 7685
- BENZIMIDAZOLE**
- Effects of some cytokinins on tobacco and their relation to tobacco mosaic virus infection. 6915
- BENZINE HEXACHLORIDE**
- BHC translocation from treated soil and the effect on growth of red clover. 6686
- Control of the woolly apple aphid on roots of apple nursery stock. 7011
- BENZYL-9-(TETRAHYDROPIRAN-2-YL)-ADENINE, N-**
- Effects of some cytokinins on tobacco and their relation to tobacco mosaic virus infection. 6915
- BENZYLADENINE**
- Some effects of supplying benzyladenine to leaves and plants inoculated with viruses. 6695
- BENZYL BENZYL CHRYSANTHEMATES**
- Pyrethrins and related compounds. ix. alkenbenzyl and benzylbenzyl chrysanthemates. 7690
- BEPHENIUM HYDROXYNAPHTHOATE**
- The control of *Nematodirus fillicollis* infection by strategic anthelmintic medication. 7321
- BERENIL**
- Prophylactic activity of Berenil against trypanosomes in treated cattle. 7537
- BEROSINAE**
- Taxonomy and biology of the subfamily Berosinae of North and Central America and the West Indies (*Coleoptera*: *Hydrophilidae*). 6471
- BIOCHEMISTRY**
- Some biochemical changes associated with virus infection in apple. 6820
- Purification, morphology, and biochemical characterization of the Wisconsin pea streak virus. 6872
- Nutritional and biochemical aspects of arabinose and xylose for chicks. 7539
- BIOLOGICAL ASSAY**
- Laboratory technique and apparatus for testing viruses applied as dusts. 6596
- Toxins from the entomogenous fungus *Metarrhizium anisopliae* I. Production in submerged and surface cultures, and in inorganic and organic nitrogen media. 6618
- The biological evaluation of spray additives and solvents with *Blattella germanica* (Linn) and *Periplaneta americana* (Linn.). 6639

# SUBJECT INDEX

## BIOLOGICAL CONTROL (DISEASES)

- Herbicidal activity of vapors of 4-amino-3,5,6-trichloropicolinic acid. 7123
- Chlorophyll formation in *Euglena* as a test for herbicides. 7129
- Bioassay methods for 4-amino-3,5,6-trichloropicolinic acid. 7742

## BIOLOGICAL CONTROL (DISEASES)

- Addition of fungal cell-wall components to soil for biological disease control. 6822
- Biological control of *Phytophthora* root rot of avocado with alfalfa meal. 6978

## BIOLOGICAL CONTROL (INSECTS)

- Further tests on the use of a polyhedrosis virus in the control of the cotton leafworm *Prodenia litura*, Fabricius. 6445
- Pythium* sp. (Phycomycetes Pythiales) pathogenic to mosquito larvae. 6515
- Hemerocampa pseudotsugata* McDunnough, a new host for *Beauveria bassiana* (Balsamo) Vuillemin. 6524
- Microbial control of two cabbage insects. 6588
- Pathogenicity of externally occurring fungi to *Reticulitermes flavipes*. 6634
- The utilization of *Bacillus thuringiensis* Berliner as a biotic insecticide to suppress the alfalfa caterpillar. 6640
- Infection of the garden symphylan, *Scutigera immaculata* with the DD-136 nematode. 6645

## BIOLOGICAL CONTROL (PLANT DISEASES)

- Control of peach bacterial spot with *Xanthomonas pruni* bacteriophage. 6730

## BIOLOGY

- Biology and evaluation of certain predators of *Therioaphis maculata* (Buckton). 6628
- Observations on the biology of *Psorophora cyanescens*. 6635
- Biology and control of the apple seed chalcid in North Carolina. 7072
- The biology of the pine webworm, *Tetralopha robinella*, in Wisconsin. 7116

## BIOMETEOROLOGY

- Symposium on requirements and interpretations of biometeorological observations. invitational papers presented at the fifty-fourth annual meeting of the American Phytopathological Society. Corvallis, Oregon, August 26-29, 1962. 6691

## BIOTIN

- Effect of biotin on growth and sporulation of *Verticillium albo-atrum*. 6777

## BIPHENYL

- Biphenyl-resistant citrus green mold reported in Florida. 6914

## BIPOLARIS

- Spore germinability in soil as an inherent character of *Cochliobolus sativus*. 7706

## BIRDS

- Thyroid dysplasia in the budgerigar. 7242
- Control of the northern fowl mite, *Ornithonyssus sylviarum* (C. + F.), with ronnel, Bayer 113/59, and Bayer 21/199. 7573
- Organochlorine pesticides in Antarctica. 7684

## BIRDFOOT TREFOIL

- Host-parasite relations of *Stemphylium* leafspot and stem canker of birdfoot trefoil (*Lotus corniculatus*). 6737
- A physiogenic leaf and stem spot of some forage legumes.

6790

## BLACK LEAF 40

- Nicotine residues in field-treated cauliflower, celery, green beans, kale, mustard greens and spinach. 7661

## BLACK ROOT ROT (PINUS)

- Black root rot of pine. 6771

## BLACK SHANK (TOBACCO)

- Calcium nutrition in relation to the black shank disease of tobacco. 6825

## BLACK SPOT (ROSA)

- Host-parasite interaction in blackspot disease of roses caused by *Diplocarpon rosae* Wolf. 6886

## BLACKHEAD

- Effects of paromomycin sulfate on blackhead in turkeys. 7159
- Histomoniasis (Blackhead) in broiler chickens. 7353
- Dimetridazole part II. Therapeutic activity and toxicity in the treatment of experimental histomoniasis in turkeys. 7619

## BLADDER

- Rupture of the bladder in a calf. 7287

## BLATTELLA GERMANICA

- Evaluation of compounds of cadmium and related metals as reproduction inhibitors in insects. 6476
- Laboratory selection of normal and chlordane-resistant German cockroaches for resistance to Malathion and Diazinon. 6535
- The biological evaluation of spray additives and solvents with *Blattella germanica* (Linn.) and *Periplaneta americana* (Linn.). 6639

## BLATTIDAE

- On the in-vitro culture of intracellular symbiotes of cockroaches. 6497
- Studies of water conservation in cockroaches. 6653

## BLIGHT (SORGHUM)

- Purification of the selective toxin of *Periconia circinata*. 7755

## BLOAT

- An analysis of the bloat complex and progress towards its prevention. 7236

## BLOOD

- Establishment of an insect cell strain persistently infected with an insect virus. 6592
- Blood loss caused by *Haemonchus contortus* in sheep. 7216
- The recovery of *Pasteurella multocida* from lyophilized cultures. 7265
- Role of aggregated bovine serum albumin in pathogenesis of serum sickness nephritis in rabbits. 7403

## BLOOD CELLS

- Variations in total hemocyte counts as induced by a nose-mosquito in the cabbage looper, *Trichoplusia ni*. 6572

## BLOOD SERUM

- Blood serum protein from mink with Aleutian disease. 7185

## BLOOD TRANSFUSIONS

- The application of blood transfusion in cattle with particular reference to redwater (*Babesia bovis*). 7623

## BLUEBERRIES

- Relationships of viruses associated with ringspot diseases of blueberry. 6798
- Current fruit weevil, *Pseudanthrenus validus*, a pest of cultivated highbush blueberry. 7069

## BOARS

- Evaluation of problems related to introduction of secondary specific-pathogen-free (SPF) boars into SPF and Non-SPF herds. 7534



# SUBJECT INDEX

**BOLL ROT (COTTON)**  
 Relation of seed-borne fungi to boll rots of cotton. 6960

**BOMBINAE**  
 Acarina associated with Michigan Bombinae. I-II. . 6458

**BOMBYX MORI**  
 Mode of multiplication of silkworm nuclear polyhedrosis virus II. Multiplication of the virus in the early period of the LD50-- time curve. 6478

On the structure of cytoplasmic polyhedra of some lepidoptera. 6489

Fungus infection of insects via the alimentary tract. 6530

Serological studies of the cytoplasmic- and nuclear-polyhedrosis viruses of the silkworm, Bombyx mori. 6552

Studies of two strains of cytoplasmic-polyhedrosis virus. 6553

Studies on lipids in the hemolymph of the silkworm, Bombyx mori, during the course of nucleopolyhedrosis. 6567

Toxins from the entomogenous fungi Metarrhizium anisopliae. II. Symptoms and detection in moribund hosts. 6619

Postembryonic development of the optic ganglia in Bombyx mori. 6623

Postembryonic development of the brain in Bombyx mori. 6624

**BONE DISEASES**  
 Suspected skeletal scurvy in the dog. 7360

Osteogenesis imperfecta in lambs. 7362

Suspected skeletal scurvy in the dog. 7464

Suspected skeletal scurvy in a dog. 7490

**BONE DISLOCATION**  
 Congenital detachment of the processus anconeus in the dog. 7341

**BONES**  
 Influence of dietary zinc, calcium and vitamin D for hens on zinc content of tissues and eggs and on bone composition. 7137

**BOOPHILUS**  
 Ticks in the united states serve as vectors of disease. 7187

**BOOPHILUS ANNULATUS**  
 Resistance of Boophilus microplus to organo-phosphorus insecticides. 7503

**BORDEAUX MIXTURE**  
 Control of Cylandrosporium leaf spot disease of Rhus trilobata and Shepherdia argentea seedlings. 6855

**BORDER DISEASE**  
 Hypomyelinogenesis congenita in lambs. 7240

**BORDETELLA**  
 Comparison of pathogenicity of various isolates of Bordetella bronchiseptica in young pigs. 7488

**BOTRAN**  
 Control of Botrytis neck rot of onions by fungicidal dusts and desiccant chemicals. 6779

Effects of 2,6-dichloro-4-nitroaniline on Rhizopus species and its comparison with other fungicides on control of Rhizopus rot of peaches. 6838

**BOTRYTIS**  
 Studies on levels of reducing sugars and hydrolytic enzymes in relation to Botrytis head rot on safflower. 6703

Effects of sodium fluoride on growth of some pathogenic fungi. 6943

## BROWN SPOT (BROADBEANS)

**BOTRYTIS ALLII**  
 Control of Botrytis neck rot of onions by fungicidal dusts and desiccant chemicals. 6779

**BOVICOLA**  
 Cattle lice eradication studies- A-3-year evaluation. 7230

**BOVINE BRUCELLOSIS**  
 Detection of bovine brucellosis by acidified plate test antigens. 7181

**BOVINE LYMPHOSARCOMA**  
 Lymphocyte counts relating to bovine lymphosarcoma. 7165

**BOVINE RHINOTRACHEITIS VACCINES**  
 Respiratory disease in vaccinated feeder cattle. 7211

**BOXER DOGS**  
 Cholelithiasis causing obstructive jaundice in a Boxer dog. 7248

**BRACON HEBETOR**  
 Succinioxidase activity in two species of Bracon (Hymenoptera, Braconidae). 6595

**BRACON SERINOPAE**  
 Succinioxidase activity in two species of Bracon (Hymenoptera, Braconidae). 6595

**BRADYSIA**  
 Yield and quality of mushrooms from beds treated with lindane. 7075

**BRAIN**  
 Postembryonic development of the brain in Bombyx mori. 6624

Histology of the brain of Labidura riparia (Pallas) (Dermaptera). 6630

**BREEDING**  
 Breeding Pieris brassicae apparently free from granulosus virus. 6670

A method of using mycelial, monosporial isolates of Tilletia controversa in pedigree hybrid crosses. 6908

Drosophila breeding in refuse from tomato canneries. 7031

Disease on a large scale. 7150

Tick-borne disease control. 7309

**BREVIBACTERIACEAE**  
 Bacteria of grasshoppers of western Canada II. The Pseudomonadaceae, Achromobacteraceae, Micrococcaceae, Brevibacteriaceae, Lactobacillaceae, and less important families. 6503

**BREVIBACTERIUM**  
 The occurrence of species of the genus Brevibacterium in insects. 6463

**BROADBEANS**  
 A toxic metabolite from Ascochyta fabae having antibiotic activity. 6841

**BROCCOLI**  
 Response of different strains of the green peach aphid to malathion. 7060

**BROMOCHLOROETHANE**  
 Susceptibility of life stages of the Mexican fruit fly to fumigation with ethylene chlorobromide. 6985

**BROMUS**  
 Purification and properties of bromegrass mosaic virus. 6723

**BROWN ROT (CHERRIES)**  
 Plant introduction sour cherry selections - probable sources of brown rot resistance. 6823

**BROWN SPOT (BROADBEANS)**  
 A toxic metabolite from Ascochyta fabae having antibiotic activity. 6841

# SUBJECT INDEX

<b>BRUCELLA</b>	
<b>BRUCELLA</b>	
Detection of bovine brucellosis by acidified plate test antigens.	7181
Combined serologic tests most accurate for identifying brucellosis reactors.	7183
Ram epididymitis versus brucellosis.	7184
A swine brucellosis epizootic.	7407
<b>BRUCELLA ABORTUS ANTIGENS</b>	
Detection of bovine brucellosis by acidified plate test antigens.	7181
Brucella agglutinins in East African game animals.	7484
<b>BRUCELLA ABORTUS VACCINES</b>	
Brucella-vaccinated cattle have fewer abortions, infected less easily.	7188
The relative immunising value of mucoid L and S19 strains of Brucella abortus with comparative observations on the agglutination and complement fixation tests.	7536
<b>BRUCELLOSIS</b>	
Wisconsin eradicates brucellosis.	7176
Detection of bovine brucellosis by acidified plate test antigens.	7181
Combined serologic tests most accurate for identifying brucellosis reactors.	7183
Ram epididymitis versus brucellosis.	7184
Pregnancy hormones and brucellacidal activity in bovine serum.	7213
Fetal skin harbors most microorganisms.	7214
Brucellosis control and eradication Notes and proposals of the Oxford working group.	7255
A swine brucellosis epizootic.	7407
<b>BRUCHIDAE</b>	
Structure and metamorphic changes in the fat body of Callosobruchus maculatus (F.) (Bruchidae, Coleoptera).	6606
<b>BRUCHOPHAGUS</b>	
Sampling alfalfa seed for clover seed chalcid damage.	7067
<b>BRUCHUS</b>	
Mortality factors for the vetch bruchid, Bruchus brachialis.	7000
<b>BRUSH TECHNIQUE</b>	
Brush technique for detection of fungus diseases.	7327
<b>BUFFALOES</b>	
Incidence of mastitis in cows and buffaloes in north west India.	7389
Fatal strike caused by Chrysomia bezziana in cattle and buffaloes.	7633
<b>BUILDINGS</b>	
Fumigation of buildings to control the dry-wood termite, Cryptotermes brevis.	7646
<b>BULLS</b>	
Seminal vesiculitis in bulls associated with infection by Actinobacillus actinoides.	7384
<b>BUSHBUSH VIRUS</b>	
Bushbush, Ieri and Lukuni viruses, three unrelated new agents isolated from Trinidadian forest mosquitoes.	6683
<b>BUTACARB(3,5-DI-)-BUTYLPHENYL N-METHYLCARBAMATE</b>	
The search for veterinary insecticides. II. carbamates active against sheep blowfly.	7691
<b>BUTOXY POLYPROPYLENE GLYCOL</b>	
Use of an animal membrane in the evaluation of chemical repellents against the stable fly.	7568
<b>BUTYL 2-METHYL-3-(3,4-METHYLENEDIOXYPHENYL)</b>	
Methods for the evaluation of stable fly toxicants and repellents.	7579
<b>BUTYL 2-METHYL-3-(3,4-METHYLENEDIOXYPHENYL) PROPYL ACID</b>	
Screening tests with synthetic compounds as synergists for house fly sprays.	6682
<b>BUTYRIC ACID</b>	
Chemotherapy of the apple scab disease with butyric acid derivatives.	6801
<b>BUGUS</b>	
Systemic insecticides for control of scales, leaf miners, and lace bugs.	7059
<b>CABBAGE</b>	
Persistence of a granulosus virus of Pieris brassicae on cabbage leaves.	6517
The response to temperature of cabbage virus A infection in Nicotiana glutinosa.	6758
A new race of Plasmodiophora brassicae affecting badger shipper cabbage.	6898
The fate of phorate in soils.	7008
<b>CACAO</b>	
Influence of root exudates of cacao and other plants on spore development of Phytophthora palmivora.	6947
Diurnal emergence of Xyleborus ferrugineus (Coleoptera, Scolytidae) from cacao trunks in Ecuador and Costa Rica.	7057
<b>CADMIUM</b>	
Evaluation of compounds of cadmium and related metals as reproduction inhibitors in insects.	6476
<b>CADRA CAUTELLA</b>	
Effect of temperature and humidity on the fecundity and development of Cadra cautella Wlk. in wheat.	7071
<b>CAFFEINE</b>	
Aminophylline poisoning in dogs.	7350
<b>CAJANUS INDICUS</b>	
A detailed morphological study of the external and internal genital organs of female Melanagromyza obtusa (Malloch), a serious pest of Cajanus indicus L. (Agromyzidae, Diptera).	6560
<b>CALANDRA</b>	
Effectiveness of mixtures of acrylonitrile and carbon tetrachloride against three pests of stored corn.	7055
<b>CALCIFICATION (PHYSIOLOGICAL)</b>	
Calcification of the adrenal glands in a dog.	7370
Metastatic calcification induced by hytakerol in chickens infected with Plasmodium gallinaceum.	7427
<b>CALCINOSIS</b>	
The radiographic features of calcosinosis circumscripta (Kalkgicht, calcium gout) in the dog.	7538
<b>CALCIUM</b>	
Calcium nutrition in relation to the black shank disease of tobacco.	6825
Factors affecting the pathogenesis of Pythium species on cotton (Gossypium hirsutum L) seedlings.	6920
Calcium requirements of turkey breeder hens.	7135
Influence of dietary zinc, calcium and vitamin D for hens on zinc content of tissues and eggs and on bone composition.	7137
Zinc availability in the chick as affected by phytate, calcium and ethylenediaminetetraacetate.	7139
Potentialiation of chlortetracycline in laying chickens.	7140
The utilization by the chick of calcium from different sources.	7143
Vitamin D-induced calcium binding factor in rat intestinal	



# SUBJECT INDEX

## CANINE DISTEMPER

- mucosa. 7388
- Effect of soil exchangeable hydrogen and calcium ratio and the resulting pH on infection of citrus fibrous roots by *Phytophthora parasitica*. 7747
- CALCIUM CHLORIDE**  
Control of *Botrytis* neck rot of onions by fungicidal dusts and desiccant chemicals. 6779
- CALCIUM COPPER CHLORIDE**  
Infection of spruce seedlings by *Cylindrocladium scoparium*. 6715
- CALCIUM HYDROXIDE**  
*Fusarium* wilt (race2) of tomato effect of lime and micro-nutrient soil amendments on disease development. 6775  
Antidote for tannic acid poisoning in rabbits. 7191  
Antidote for tannic acid poisoning in rabbits. 7208
- CALCIUM SULFATE**  
Evidence for two different pathogens of peanut pod rot. 6754
- CALCULI**  
Laparo-cystotomy in a gelding. 7554
- CALIFORNIA**  
*Loxosceles reclusa* in southern California. 6472  
Potential use of Dylox and other insecticides in a control program for field crop pests in California. 6687  
Rapid-index methods for exocortis of citrus. 6718  
Red leaf disorders of pear in California and their relation to pear decline. 6836  
A soil-borne virus disease of pepper in California. 6852  
Field control of cotton mites with Aramite aerial spray in California. 6998  
Surveys for nosema disease of honey bees in California. 7021  
Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California. 7065  
A plant-parasitic nematode of the genus *Rotylenchulus* found in California. 7102  
Paraquat for selective control of range weeds. 7125
- CALIFORNIA BEEF CATTLE**  
Infectious bovine rhinotracheitis abortion and its relationship to nutrition in California beef cattle. 7278
- CALIFORNIA MASTITIS TEST**  
An evaluation of the California mastitis test and the Negretti field test as indicators of subclinical bovine mastitis. 7299
- CALLIPHORIDAE**  
The search for veterinary insecticides. II. carbamates active against sheep blowfly. 7691
- CALLITROGA**  
Use of insects for their own destruction. 6672
- CALLORHINUS**  
Pathology of the Northern fur seal. 7392
- CALLOSOBRUCHUS MACULATUS**  
Structure and metamorphic changes in the fat body of *Callosobruchus maculatus* (F.) (Bruchidae, Coleoptera). 6606
- CALLUS (PLANTS)**  
Nematode-induced callus on carrot discs grown in vitro. 7109
- CALVES**  
Experimental ornithosis in calves. 7147  
Rift valley fever in calves, goats and pigs. 7194  
Anaplasmosis complement-fixation response in calves. 7209
- Occurrence and etiology of infectious calf diarrhea. 7228
- Pneumonia in calves caused by parainfluenza virus type 3. 7246
- Sudden death in a calf associated with advanced lymphatic leucosis. 7266
- Rupture of the bladder in a calf. 7287
- The control of an outbreak of pneumonia in broiler calves with Virugon, a synthetic, oral anti-viral agent. 7301
- Muscular dystrophy in calves Simultaneous peracute and progressive types. 7316
- Intensive veal production and a hitherto untried nitrofurantoin preliminary trial. 7329
- Symposium on calf diseases. 7330
- Gastric dyspepsia in calves. 7337
- The control of an outbreak of *Salmonella dublin* in calves. 7401
- Dyspepsia in calves. 7411
- The pathogenesis of diarrhea in the newborn calf, with special reference to physiologic functions and environmental conditions. 7436
- Prophylactic use of Framycetin sulphate in calves. 7442
- White muscle disease, a selenium-responsive myopathy. 7443
- Emphysema with cardiac embasment in calves. 7453
- Mortality and morbidity in calves with salmonellosis. 7489
- The incidence of lead poisoning in calves in Northern Ireland. 7529
- Effect of diethylcarbamazine on parasitic bronchitis in calves. 7591
- Immunization experiments with lungworm larvae. 7592
- Lungworm infection in cattle-Control and treatment. 7627
- Vaccination of calves against rinderpest. 7634
- Acute toxic effects upon livestock and meat and milk residues of dieldrin. 7677
- CANADA**  
Bacteria of grasshoppers of western Canada III. Frequency of occurrence, pathogenicity. 6499  
Bacteria of grasshoppers of western Canada I. The enterobacteriaceae. 6501  
Bacteria of grasshoppers of western Canada II. The Pseudomonadaceae, Achromobacteraceae, Micrococcaceae, Brevibacteriaceae, Lactobacillaceae, and less important families. 6503
- CANCROID SPOT (CITRUS)**  
Cancroid spot of citrus. 6786
- CANDIDA**  
Candidiasis in pigs in northwest Wisconsin. 7235  
The effect of 2 hepta-5-methylbenzimidazole and hydrochloric acid on the growth of microflora found on poultry carcasses. 7652
- CANINE DISTEMPER**  
Cockers and labradors more resistant to distemper. 7197  
Effect of revaccination on distemper antibody levels. 7368  
Apparent canine distemper caused by *Klebsiella* organisms. 7452

# SUBJECT INDEX

## CANINE DISTEMPER VIRUS

### CANINE DISTEMPER VIRUS

- Vaccination of puppies. 7303
- A clinician's view of canine virus diseases. 7386
- Resistance of egg-adapted canine distemper virus to formalin\* 7462

### CANINE HEARTWORM DISEASE

- Two-day treatment with Thiacetarsamide for canine heartworm disease. 7378

### CANKER (PRUNUS DOMESTICA)

- First and second year effects on *Cytospora* canker disease of Italian prune trees sprayed with four concentrations of cycloheximide thiosemicarbazone. 6764

### CANNERIES

- Drosophila* breeding in refuse from tomato canneries. 7031

### CANTALOUPE

- Characteristics of an unidentified virus from cucurbits. 6834

### CAPILLARIA

- Methyridine in the control of intestinal capillariasis in birds. 7637

### CAPTAN

- Control of Botrytis neck rot of onions by fungicidal dusts and desiccant chemicals. 6779
- Effects of 2,6-dichloro-4-nitroaniline on *Rhizopus* species and its comparison with other fungicides on control of *Rhizopus* rot of peaches. 6838
- Control of *Cylindrosporium* leaf spot disease of *Rhus trilobata* and *Shepherdia argentea* seedlings. 6855
- Carbonyl sulphide from the decomposition of captan. 7746

### CARBACHOL

- Recovery from grass sickness. 7306

### CARBAMATES

- The search for veterinary insecticides. II. carbamates active against sheep blowfly. 7691
- Metabolism of methylcarbamate insecticide chemicals in plants. 7717

### CARBARYL

- The effects of chemical insecticides and insecticidal adjuvants of a *Heliothis* nuclear polyhedrosis virus. 6557
- The penetration of piperonyl butoxide as a synergist and as an antagonist in *Musca domestica* L. 6655
- Methylenedioxyphenyl derivatives as synergists for carbamate insecticides on susceptible, DDT-, and parathion-resistant house-flies. 6679
- Laboratory studies on the toxicity of various insecticides to different stages of the oriental fruit moth. 6988
- European corn borer control in peppers. 6990
- Influence of timing and insect biology on the effectiveness of insecticides applied for control of European pine shoot moth, *Rhyacionia buoliana*. 6991
- Effectiveness of insecticides against the European corn borer and green peach aphid on peppers. 7017
- Residues of Sevin and 1-naphthol on forage from aerial applications of Sevin in oil. 7020
- Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958. 7042
- Plum curculio control experiments in 1955-58. 7062
- Control of the grape leaf folder in California. 7064
- Biology and control of the apple seed chalcid in North Carolina. 7072
- Control of boll weevils resistant to chlorinated hydrocarbons. 7074

- A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn. 7084

- Salt-marsh caterpillar control on cotton in Arizona. 7118

- Resistance of *Boophilus microplus* to organo-phosphorus insecticides. 7503

- Residual effectiveness of certain insecticides in horn fly control. 7572

- Sevin residues on soybeans following its use for armyworm control. 7669

- Residue studies of livestock sprays containing Sevin. 7678

### CARBOHYDRATES

- Muscle necrosis and amyloidosis in the White Pekin duck. 7220

### CARBOMYCIN

- Carbomycin for pleuropneumonia-like organism infection. 7267

### CARBON

- Separation of bacterial spores and parasporal bodies with a fluorocarbon. 6480
- Purification of insect virus inclusion bodies with a fluorocarbon. 6490
- Effect of the soil carbon nitrogen ratio on soil fungi. 6778
- Spore germination and carbon metabolism in *Fusarium solani*. I. requirements for spore germination. 7709

### CARBON DISULFIDE

- Distribution and sorption of liquid fumigants applied to wheat by recirculation. 6688

### CARBON ISOTOPES

- Translocation of C14-labeled compounds in cotton and oaks. 7708

### CARBON TETRACHLORIDE

- Distribution and sorption of liquid fumigants applied to wheat by recirculation. 6688
- Susceptibility of certain stages of the rice weevil to a methallyl chloride fumigant formulation in wheat of various moistures. 7045
- Effectiveness of mixtures of acrylonitrile and carbon tetrachloride against three pests of stored corn. 7055
- Injectable Carbontetrachloride in the treatment of *Fasciola hepatica* infestation in lambs. 7608

### CARBONYL SULPHIDE

- Carbonyl sulphide from the decomposition of captan. 7746

### CARBOPHENOTHION

- Field testing of insecticides for control of the Nantucket pine moth, *Rhyacionia frustrana*, and the European pine shoot moth, *R. buoliana*. 7001
- Evaluation of chemicals for control of a spider mite complex on cherry and peach. 7003
- Plum curculio control experiments in 1955-58. 7062
- Resistance of *Boophilus microplus* to organo-phosphorus insecticides. 7503

### CARCASSES

- The influence of physical form of roughages and antibiotic administration on performance, carcass characteristics, health, of the rumen epithelium, rumen volatile fatty acids and liver abscesses of steers fed all-concentrate rations. 7347

### CARCINOGENS

- The histopathological effects of certain carcinogenic 2-fluorenamine derivatives on larvae of the house fly. 6507



# SUBJECT INDEX

		CATTLE
CARCINOMA		
Tonsillar carcinoma in rural dogs.	7471	Dihydrostreptomycin therapy of bovine vibriosis. 7161
CARPOPHILUS		Lymphocyte counts relating to bovine lymphosarcoma. 7165
Experiments for the control of sap beetles in sweet corn grown for processing.	7014	Anaplasmosis vaccine announced. 7168
CARROTS		Skunks and cows are rabies threat in Iowa. 7172
Physiology of Rhizopus infection on carrot.	6814	Wisconsin eradicates brucellosis. 7176
Lesion nematode injury to carrot.	7108	Foot-and-mouth disease vaccine-production of antigen in culture. 7177
Nematode-induced callus on carrot discs grown in vitro.	7109	Detection of bovine brucellosis by acidified plate test antigens. 7181
The effect of soil treatments of chlordane or heptachlor on the flavor of turnips, parsnips, and carrots.	7671	Combined serologic tests most accurate for identifying brucellosis reactors. 7183
Control of thar (Hemitaragus jemlahicus), evaluation of a poisoning technique.	7689	Response of cows and calves to a Psittacosis-Lympho-granuloma group agents. 7186
Production of 3-methyl-6-methoxy-8-hydroxy-3,4-dihydroisocoumarin by carrot root tissue.	7736	Brucella-vaccinated cattle have fewer abortions, infected less easily. 7188
CASEOUS LYMPHADENITIS		Changes in endometrium of vibrio fetus-infected and noninfected heifers. 7190
The occurrence of gaseous lymphadenitis and Morel's disease in a sheep flock in Kenya.	7505	Significance of johnin test on naturally infected cattle. 7192
CASSIA		Psoroptic cattle scabies eradication activities for 1962. 7193
Myodegeneration in cattle grazing cassia species.	7354	Toxicity of copper sulfate in beef cattle. 7199
CATALASE		Detection of antibodies to staphylococcus aureus in cattle. 7201
Inhibition of fungi by culture media previously exposed to light.	6954	Three methods for controlling grass tetany in cattle and sheep. 7202
CATANARIA		Respiratory disease in vaccinated feeder cattle. 7211
The activity of the fungus, Catanaria anguillulae, against plant-parasitic nematodes.	7719	Pregnancy hormones and brucellacidal activity in bovine serum. 7213
CATERPILLARS		Groundnut toxicity. Aspergillus flavus toxin (aflatoxin) in animal products preliminary communication. 7225
Protection of a susceptible insect host against a nuclear polyhedrosis virus by ether extracts from insect larvae.	6488	Three cases of Salmonella dublin in adult cattle on the same farm. 7227
Light microscopy of the virogenic stromata of cytopolyhedroses.	6663	Occurrence and etiology of infectious calf diarrhea. 7228
CATS		Cattle lice eradication studies- A-3-year evaluation. 7230
Vertebral osteophytes in the cat.	7243	Diffuse lipomatosis in a heifer. 7232
Chronic rhinitis in cats.	7275	Cysteamine therapy of primary bovine ketosis. 7233
A case of Erysipelothrix monocytogenes (Listeria monocytogenes) in the cat.	7367	Perforation of the omasum and ulceration of the abomasum in a cow. 7244
Bacterial gastro-enteritis outbreaks in cats.	7374	A vaccine for anaplasmosis. 7258
Bacterial gastro-enteritis in cats.	7400	Fluorosis causes lameness. 7260
Feline dermatology.	7439	A case of bovine lymphoma. 7271
Feline cryptococcosis.	7448	Haemoglobinaemia of cattle associated with the feeding of Brassicae species. 7272
Metaldehyde poisoning.	7449	An outbreak of poisoning in store cattle attributed to Brazilian groundnut meal. 7273
A case of Escherichia monocytogenes (Listeria monocytogenes) in a cat.	7533	Evaluation of bacterins for control of swine abscesses. 7276
A non-tuberculous granuloma of the cat associated with an acid-fast bacillus.	7550	Infectious bovine rhinotracheitis abortion and its relationship to nutrition in California beef cattle. 7278
A non-tuberculous granuloma of the cat associated with an acid-fast bacillus.	7551	Basic slag toxicity in cattle and sheep. 7280
Lesions associated with liver fluke infection in a cat.	7587	Base composition and thermal denaturation of DNA isolated from Anaplasma marginale. 7295
The zoonosis of animal parasites in Iraq. IV. Some unusual lesions associated with Opisthorchis tenuicollis infection.	7593	An unusual spindle-cell tumour of the mandible of a cow. 7296
An experimental investigation into the use of methyridine as an anthelmintic for cats.	7602	
A taenacide for dogs and cats.	7639	
CATTLE		
Mechanism of food transport in cattle-tick, Hyalomma aegyptium.	6562	

# SUBJECT INDEX

Acorn poisoning in a cow and a sheep.	7308	The therapeutic use of cysteamine in bovine ketosis.	7495
Tick-borne disease control.	7309	A study of the effects of various hormone treatments on the reproductive activity of prepuberal and post-puberal beef heifers and lactating beef cows.	7507
Chlortetracycline for elimination of anaplasmosis in carrier cattle.	7311	Prophylactic activity of Berenil against trypanosomes in treated cattle.	7528
Studies on an experimental vaccine for prophylaxis of shipping fever.	7314	Histologic and electron microscopic studies of agranulocytes and hemal and hemolymph nodes in cattle.	7537
ATPase activity of the erythrocytic membrane in anaplasmosis and of <i>Anaplasma marginale</i> .	7317	A successful anaplasmosis eradication program.	7545
Pathological changes in the tarsi of cattle suffering from paresis spastica, examined by means of X-rays.	7318	Tick-borne fever as a cause of abortion and stillbirths in cattle.	7552
Cypress poisoning.	7328	A study of the histological effects of <i>Hypoderma lineatum</i> (De Vill.) on gullet tissue taken from systemically treated and untreated cattle.	7557
Myodegeneration in cattle grazing cassia species.	7354	Residual effectiveness of certain insecticides in horn fly control.	7570
A simple test for bovine liver dysfunction.	7355	Systemic insecticides for cattle grub control.	7572
Some examples of secondary circulatory dysfunction in cattle.	7361	Organophosphate systemics as sprays and feed additives for cattle grub control.	7574
Urethral calculi in a steer.	7363	Methods for the evaluation of stable fly toxicants and repellents.	7577
Effect of fluorides in cattle.	7365	The in vivo activity of several systemic insecticides against cattle grubs in South Dakota.	7579
A case of distension of the omasum.	7371	Feed lot tests with ronnel for control of cattle grubs.	7582
Bovine lymphosarcoma.	7379	Thiabendazole as an anthelmintic in cattle and sheep.	7586
Anaplasmosis control preventing the introduction and spread in Anaplasmosis-free areas.	7387	Swine ascarids infect cattle.	7588
Studies on myxovirus parainfluenza-3 vaccine for prevention of shipping fever in cattle.	7395	Control of <i>Dermatobia hominis</i> in Central America.	7589
The use of chemotherapeutic agents in animal tuberculosis.	7396	Further experiences with the systemic insecticides Etoleone and Ruelene in 1960-61.	7594
Epizootiology of bovine myxovirus parainfluenza 3(sf-4) in Nebraska cattle as determined by antibody titers.	7398	Husk in cattle Laboratory and field studies on calves vaccinated with irradiated with lungworm larvae.	7600
A case of traumatic uterine rupture in a heifer.	7399	Experience with an anthelmintic.	7605
The presence of aflatoxin in a sample of cotton-seed cake.	7406	Dermatobiasis in cattle in South America.	7613
Observations on the effects of flies and humidity on the natural lesions of streptothricosis.	7409	Bacillary hemoglobinuria (redwater disease) in florida.	7615
Tick-borne fever in East Africa.	7416	Bovine streptothricosis Production of lesions by the bites of the tick <i>Amblyomma variegatum</i> .	7617
Toxicity of nitrate nitrogen to cattle.	7423	Tick transmission of bovine pasteurellosis.	7620
Immunologic and epizootologic studies of epizootic bovine abortion.	7425	The effects of ectoparasites and humidity on natural lesions of streptothricosis.	7621
Disease control in Africa.	7433	The application of blood transfusion in cattle with particular reference to redwater ( <i>Babesia bovis</i> ).	7622
Pulmonary aspergillosis in a cow.	7435	Morphological changes in a parasitic nematode due to acquired resistance of the host.	7623
Acute pulmonary emphysema in cattle.	7441	Griseofulvin in the treatment of bovine ringworm.	7624
The responses of cows to experimentally induced hypocalcemia.	7457	Efficacy of thiabendazole against <i>Cooperia</i> spp. and <i>Ostertagia ostertagi</i> in cattle.	7628
<i>Mycobacterium fortuitum</i> as a cause of bovine mastitis Tuberculin sensitivity following experimental infections.	7459	Fatal strike caused by <i>Chrysomia bezziana</i> in cattle and buffaloes.	7631
Diagnosis antigens for the detection of nocardiosis in animals.	7460	Economic parasitology.	7633
Maduromycosis of the bovine nasal mucosa.	7479	The anthelmintic activity of methyridine by intraperitoneal injection in sheep and cattle.	7635
Streptothricosis in cattle.	7480	Residues in established alfalfa treated with granulated phorate (Thimet) and their effect on cattle fed the hay.	7640
Problems of establishing anaplasmosis-free herds in Montana.	7491		
Viral causes of bovine abortion in ohio.	7493		
Low leukocyte levels protect cows from coliform mastitis.	7494		
Subendocardial haemorrhage in rinderpest-infected cattle.			



# SUBJECT INDEX

## CHEMICAL CONTROL (PLANT DISEASES)

- The excretion of dieldrin, DDT, and heptachlor epoxide in milk of dairy cows fed on pastures treated with dieldrin, DDT, and heptachlor. 7668
- Heptachlor residues on corn stover in relation to dairy cattle feeding. 7670
- Toxicological aspects of 2,2-dichlorovinyl dimethyl phosphate (DDVP) in cows, horses, and white rats. 7699
- CAULIFLOWER**  
On two plant parasitic nematodes from a cauliflower field in the Punjab. 7092
- Nicotine residues in field-treated cauliflower, celery, green beans, kale, mustard greens and spinach. 7661
- CECAL WORMS**  
Efficacy of micronized phenothiazine against *Heterakis galinae* in chickens. 7629
- CEDUSA**  
A taxonomic study of the genus *Cedusa* in the New World (Homoptera: Derbidae). 6454
- CELERY**  
Nicotine residues in field-treated cauliflower, celery, green beans, kale, mustard greens and spinach. 7661
- CELL NUCLEUS**  
Synthesis of tobacco mosaic virus forms in nucleus and cytoplasm. 6700
- CELLS**  
Establishment of an insect cell strain persistently infected with an insect virus. 6592
- Addition of fungal cell-wall components to soil for biological disease control. 6822
- Relationship of water content and living cells to spread of *Diplodia zeae* in corn stalks. 6849
- CELLULOSE**  
Production of pectinolytic and cellulolytic enzymes by *Rhizopus stolonifer*. 6919
- The microbial hydrolysis of cellulose and some factors affecting the production of cellulase in a submerged culture of *Alternaria* sp. 7718
- CELLULOSE**  
Production of pectinolytic and cellulolytic enzymes by cucurbit anthracnose fungi. 6968
- Purification of swine enteroviruses and swinepox viruses. 7218
- The microbial hydrolysis of cellulose and some factors affecting the production of cellulase in a submerged culture of *Alternaria* sp. 7718
- CELLULOSE ACETATES**  
Toxicity of cellulose acetate sheeting to leguminous plants. 7026
- CENTAUREA**  
Nigropallidal encephalomalacia in the horse. 7307
- CENTRIFUGATION**  
Rapid plant virus assay combines density-gradient centrifugation and Ouchterlony agar diffusion serological tests. 7712
- CEPHALOSPORIUM**  
Prevention of symptom development of *Fusarium* wilt of cotton by isolates of a *Cephalosporium* species. 6877
- Wilting of persimmon caused by *Cephalosporium diospyri*. 6966
- CERATOCYSTIS**  
*Ceratocystis fagacearum* in roots of infected bur oaks and the recurrence and spread of oak wilt. 6831
- CERATOMA**  
Serological relationship between bean pod mottle virus and cowpea mosaic viruses from Arkansas and Trinidad. 6906
- CERATOPOGONIDAE**  
The *Culicoides* of New Mexico (Diptera, Ceratopogonidae). 6446
- CERCOSPORA**  
Relation of *Cercospora* infection to oil application on the dorsal or ventral side of tung leaves. 6948
- Comparative anatomical study of leaves of young and mature banana plants in relation to the morphology of *Cercospora musae* lesions. 7720
- CERCOSPORA PERSONATA**  
Some observations of peanut leaf rust and *Cercospora* leaf spots in Texas. 6762
- CEROCOCCUS HIBISCI**  
First records of hymenopterous parasites of yellow scale of cotton *Cerococcus hibisci* Green (Homoptera, Coccidae). 6629
- CESIUM ISOTOPES**  
Public health aspects of cesium-137 in ruminants. 7501
- CESIUM-137**  
Public health aspects of cesium-137 in ruminants. 7501
- CHAETOMIUM**  
Effect of the soil carbon nitrogen ratio on soil fungi. 6778
- CHARCOAL ROOT (ABIES CONCOLOR)**  
Control of the charcoal root disease of white fir by fall soil fumigation. 6913
- CHARCOAL ROOT (PINUS PONIEROSA)**  
Control of the charcoal root disease of white fir by fall soil fumigation. 6913
- CHARIPS**  
Diapause and secondary parasites nullify the effectiveness of rose-aphid parasites in riverside, california, 1957-1958. 7058
- CHELONETHIDA**  
The spiral thread. 6563
- CHEMICAL CONTROL (FISH)**  
The toxicology of thiodan in several fish and aquatic invertebrates. 7697
- CHEMICAL CONTROL (INSECTS)**  
Mortality and fertility response of *Musca domestica* Linnaeus to certain known mutagenic or anti-tumor agents. 6566
- Testing of pesticides against cabbage aphid, *Brevicoryne brassicae* Linn. 6622
- Use of insects for their own destruction. 6672
- Evaluation of commonly used insecticides for the control of peach curl aphid, *Anuraphis helichrysi* Kalt. 6996
- CHEMICAL CONTROL (PESTS)**  
Evaluation of chemicals for control of a spider mite complex on cherry and peach. 7003
- CHEMICAL CONTROL (PLANT DISEASES)**  
Field experiments on sugar-beet downy mildew (*Peronospora farinosa*). 6717
- A probabilistic analysis of fungus control by foliar application of chemicals. 6726
- Effect of organic phosphorous pesticides on certain phytopathogenic bacteria. 6743
- Suppression of corn head smut by in-furrow applications of pentachloronitrobenzene. 6747
- Control of *Botrytis* neck rot of onions by fungicidal dusts and desiccant chemicals. 6779
- Disinfection of tomato seed infested with *Xanthomonas vesicatoria*. 6797
- Hairy root (*Agrobacterium rhizogenes*) of field roses. 6829

# SUBJECT INDEX

## CHEMICAL CONTROL (WEEDS)

- Control of *Cylindrosporium* leaf spot disease of *Rhus trilobata* and *Shepherdia argentea* seedlings. 6855
- Chemical control of bacterial blights of dry field beans in Michigan by foliage sprays applied by ground and air equipment. 6881
- The effect of growth substances on *Verticillium* wilt of tomato plants. 6909

## CHEMICAL CONTROL (WEEDS)

- The fight against weeds. 7121
- Weed science - revolution in agricultural technology. 7131

## CHEMICALS

- The designation of chemicals in terms of the responses they elicit from insects. 6518

## CHEMOSTERILANTS

- Evaluation of compounds of cadmium and related metals as reproduction inhibitors in insects. 6476
- Mortality and fertility response of *Musca domestica* Linnaeus to certain known mutagenic or anti-tumor agents. 6566

## CHEMOTROPISM

- Influence of root exudates of cacao and other plants on spore development of *Phytophthora palmivora*. 6947

## CHENOPODIUM

- External symptoms Giemsa-stainable cell inclusions associated with virus infection in cacti. 6720

## CHENOPODIUM QUINOA

- Studies on a virus causing stem grooving and graft-union abnormalities in Virginia Crab apple. 6843

## CHERRIES

- Short-stem condition in Lambert cherries. 6693
- The fungous flora of nonsuberized roots of poorly growing cherry trees. 6749
- Rate and pattern of prune dwarf virus movement within inoculated cherry trees. 6761
- Variability in rates of movement of different strains of the virus responsible for prune dwarf. 6818
- Plant introduction sour cherry selections - probable sources of brown rot resistance. 6823
- Rough fruit of sweet cherry. 6950
- Control of western X-disease virus in Utah orchards. 6951
- Evaluation of chemicals for control of a spider mite complex on cherry and peach. 7003

## CHICKEN TYPES (MEAT)

- Eimeria maxima* in Georgia broilers. 7175

## CHICKENS

- Influence of dietary zinc, calcium and vitamin D for hens on zinc content of tissues and eggs and on bone composition. 7137
- Potentialization of chlortetracycline in laying chickens. 7140
- Influence of vitamin D on avian aspects of the reproductive process in mature hens. 7142
- Effect of ingested disinfectants on chicks. 7247
- Characterization and classification of newly isolated avian enteric viruses. 7284
- Standardized infections for laboratory evaluation of compounds against a chronic respiratory disease complex in chickens. 7315
- Effect of feeding various levels *Crotalaria spectabilis* seed on the performance of chicks, turkeys, and pullets. 7342
- Chemical changes in nerves from birds affected by fowl para-

- lysis. 7351
- Histomoniasis (Blackhead) in broiler chickens. 7353
- Fowlpox virus from chickens with hemorrhagic tracheitis. 7381

- Duration of immunity against Newcastle disease in chicks vaccinated with beta-propiolactone inactivated vaccine. 7390

- Xanthomatosis in laying hens - a case report. 7391

- Metastatic calcification induced by hytakerol in chickens infected with *Plasmodium gallinaceum*. 7427

- Identification of *Mycoplasma gallisepticum* in lesion tissue by immunofluorescence. 7445

- Studies on coccidiosis and vitaminA nutrition of broilers. 7451

- Pattern of mortality in avian nephrosis. 7454

- Duration of immunity trials with betapropiolactone-inactivated Newcastle disease virus vaccines. 7461

- Rous sarcoma virus infection of chicken buffy coat macrophage. 7472

- Experimental infection of chickens with *Mycoplasma gallisepticum* and subsequent re-isolation of the organism from the body tissues. 7478

- A preliminary report on the occurrence of infectious laryngotracheitis of poultry in India. 7510

- Control of the northern fowl mite, *Ornithonyssus sylviarum* (C. + F.), with ronnel, Bayer 113/59, and Bayer 21/199. 7573

- Malathion dust for chicken mite control. 7580

- The malathion dust-bath for control of five species of lice on chickens. 7581

- Toxicity to house fly larvae of droppings from chickens fed insecticide-treated rations. 7584

- Economic importance of the chicken body louse. 7585

- A mixture of diaveridine and sulphaquinoxaline as a coccidiostat for poultry. 7604

- Efficacy of micronized phenothiazine against *Heterakis gallinae* in chickens. 7629

- The effect of 2 hepta-5-methylbenzimidazole and hydrochloric acid on the growth of microflora found on poultry carcasses. 7652

- The effect of food grade polyphosphates on the microbial population of chicken meat. 7653

## CHICKS

- Zinc availability in the chick as affected by phytate, calcium and ethylenediaminetetraacetate. 7139

- The utilization by the chick of calcium from different sources. 7143

- Zinc bacitracin and chick growth. 7274

- Concurrent *Salmonella typhimurium* and *Eimeria necatrix* infections in chicks. 7518

- Nutritional and biochemical aspects of arabinose and xylose for chicks. 7539

- Evidence for a difference in toxicity between common and hairy vetch seeds for chicks. 7687

## CHILDREN

- Insecticides in human fat in New Zealand. 7663

## CHILO

- Beauveria densa*, pathogenic for the larvae of *Chilo zonellus*. 6584



# SUBJECT INDEX

CHORISTONEURA

- CHILO ZONELLUS  
Record of nematodes parasitising Chilo zonellus Swinhoe stem borer of maize. 6585
- Tetrahymena sp. parasitic in the larvae of Chilo zonellus (Swinhoe). 6636
- CHIPMAN R-6199  
Soil injection as a means of applying systemic acaricides to fruit trees. 6997
- CHIPMAN R-6199  
Laboratory studies on the effectiveness of Chipman R-6199 against some cotton pests. 7070
- CHIRONOMIDAE  
Mouthparts of the biting and blood-sucking type in Tanyderidae and Chironomidae (Diptera). 6521
- CHIRONOMIDAE  
A limnological investigation of the Aufwuchs community in two mainstem Missouri River reservoirs. 6451
- CHITIN  
Chitin-lignin amendments for control of bean root rot. 6807
- Addition of fungal cell-wall components to soil for biological disease control. 6822
- CHLORAMPHENICOL  
A new penicillin. 7261
- Salmonella resistance increases. 7424
- CHLORDANE  
Laboratory selection of normal and chlordane-resistant German cockroaches for resistance to Malathion and Diazinon. 6535
- Soil treatments in lieu of spraying for plum curculio control in peach orchards. 7063
- Further studies on control of the clover root borer in Virginia. 7080
- Small amounts of insecticides effective in controlling grubs of the Japanese beetle. 7105
- Experiments on control of the sugar-beet wireworm in southern California bean fields. 7111
- The effect of soil treatments of chlordane or heptachlor on the flavor of turnips, parsnips, and carrots. 7671
- CHLORHEXIDINE  
Salmonella resistance increases. 7424
- CHLORIDES  
Prophylaxis against trypanosomiasis in Zebu cattle. IV. A field trial of metamidium and Isometamidium. 7482
- CHLORINATED HYDROCARBONS  
Insecticides in human fat in New Zealand. 7663
- The toxicology of thiodan in several fish and aquatic invertebrates. 7697
- CHLORINE  
The effectiveness of chlorinated hydrocarbon insecticide mixtures for control of resistant and susceptible boll weevils. 6986
- Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958. 7042
- Chlorinated hydrocarbon insecticides as soil treatments against the eye gnat Hippelates collusor (Townsend) in the laboratory. 7576
- Pathogenicity of chlorinated-nitrobenzene-tolerant strains of Hypomyces solani f. cucurbitae race 2. 7713
- Tolerance to chlorinated nitrobenzenes in Hypomyces solani f. cucurbitae and its mode of inheritance. 7738
- CHLORO-N,N-DIALLYACETAMIDE, 2-  
The mechanism of the interaction between soil organic matter and herbicide toxicity and the influence of pH on herbicide phytotoxicity. 7698
- CHLORO-4,6-BIS(ETHYLAMINO)-6-ISOPROPYLAMINO-S-TRIAZINE, 2-  
An evaluation of atrazine, simazine, monuron and diuron on ten Hawaiian sugar cane plantations. 7132
- CHLOROGENIC ACID OXIDASES  
An inexpensive, versatile oxygen electrode. 7756
- CHLOROPHYLLS  
Chlorophyll formation in Euglena as a test for herbicides. 7129
- Chlorosis induced by substituted benzoic acids and related compounds. 7710
- CHLOROPICRIN  
Control of Pythium damping-off of melons by simultaneous seeding and soil fumigation with chloropicrin. 6961
- CHLOROPIPERONYL CHRYSANTHEMUMATE  
Comparative value of some synthetic compounds as synergists with barthrin in house fly sprays. 6680
- CHLOROPLASTS  
Studies on the aggregation of tobacco mosaic virus in the ground cytoplasm and chloroplasts of tomato. 6902
- Photosynthetic phosphorylation by chloroplasts isolated from rust-infected oats. 6972
- Chloroplast number in leaves of normal wheat plants and those infested with hessian fly or treated with maleic hydrazide. 7052
- Chlorophyll formation in Euglena as a test for herbicides. 7129
- CHLOROSIS (ALFALFA)  
Infection of alfalfa by Leptosphaerulina briosiana. 6935
- CHLOROSIS (CORN)  
Monogenic chlorotic lesion resistance to Helminthosporium turcicum in corn seedlings. 6767
- CHLOROSIS (PLANTS)  
Chlorosis induced by substituted benzoic acids and related compounds. 7710
- Coralloid root systems in plants showing lime-induced chlorosis. 7715
- CHLORTETRACYCLINE  
Potentiation of chlortetracycline in laying chickens. 7140
- Suspected anthrax in a bitch. 7223
- Chlortetracycline for elimination of anaplasmosis in carrier cattle. 7311
- The influence of physical form of roughages and antibiotic administration on performance, carcass characteristics, health, of the rumen epithelium, rumen volatile fatty acids and liver abscesses of steers fed all-concentrate rations. 7347
- Influence of porcine transmissible gastroenteritis on chlortetracycline blood values. 7540
- The effect of 2 hepta-5-methylbenzimidazole and hydrochloric acid on the growth of microflora found on poultry carcasses. 7652
- CHOLESTEROL  
Histopathology of guinea pigs with cholesterol-induced anemia. 7560
- CHORIONIC GONADOTROPINS  
Pregnancy hormones and brucellacidal activity in bovine serum. 7213
- CHORISTONEURA  
Polyhedrosis and granulosis viruses causing single and double infections in the spruce budworm, Choristoneura fumiferana Clemens. 6492

# SUBJECT INDEX

## CHORISTONEURA FUMIFERANA

Aerial forest spraying against spruce budworm- A problem of mutual interest in Canada and the United States. 7117

## CHORISTONEURA FUMIFERANA

Polyhedrosis and granulosis viruses causing single and double infections in the spruce budworm, *Choristoneura fumiferana* Clemens. 6492

## CHROMATOGRAPHY

Insecticides in human fat in New Zealand. 7663

Analysis of egg yolk and poultry tissues for chlorinated insecticide residues. 7681

## CHROMOSOMES

Correlation between sperm redundancy and chiasma frequency. 6669

Cytological and autoradiographic studies on *Sciara coprophila* salivary gland chromosomes. 6671

Exchange and secondary nondisjunction in females of *Drosophila melanogaster* homozygous for X chromosome inversions. 6674

Karyological studies on the Indian spiders. VI. chromosome number and sex-determining mechanism in the family Araneidae). 6675

## CHRONIC RESPIRATORY DISEASE

Standardized infections for laboratory evaluation of compounds against a chronic respiratory disease complex in chickens. 7315

Identification of *Mycoplasma gallisepticum* in lesion tissue by immunofluorescence. 7445

## CIRCULATORY SYSTEM

Periodicity of *Dirofilaria* in the peripheral circulation of dogs. 7171

Some examples of secondary circulatory dysfunction in cattle. 7361

Cardiovascular disease in horses. 7431

Vascular occlusion in a bitch. 7470

## CITRUS

Rapid-index methods for exocortis of citrus. 6718

Sym-dibromotetrachloroethane - a new fungistat for control of citrus fruit decay. 6742

Cancroid spot of citrus. 6786

Effect of rootstock on the incidence of impietratura-diseased grapefruit fruits. 6846

Biphenyl-resistant citrus green mold reported in Florida. 6914

Transmission of the stubborn and psorosis A viruses of citrus to an herbaceous host. 6928

The beet armyworm, *Spodoptera exigua*, an economic pest of citrus in California. 6982

Susceptibility of life stages of the Mexican fruit fly to fumigation with ethylene chlorobromide. 6985

Evaluation of insecticides for control of the Fuller rose beetle on citrus in California. 7004

The effect of copper compounds on control of citrus rust mite with zineb. 7022

*Criconea laterale* Khan and Siddiqi, 1963 (Nematoda, Criconematidae), a parasite of citrus plant in the Punjab. 7093

On a nematode species of the genus *Hoplolaimus* Daday, 1905, from a citrus plant in the Punjab. 7094

Studies on two plant nematode species of the genus *Xiphinema* Cobb, 1913. 7095

On *Helicotylenchus indicus* Siddiqi, 1963 (Nematoda, Hoplolaimidae), a phytoparasitic nematode in the Punjab. 7096

On *Longidorus brevicaudatus* (Schuurmans Stekhoven, 1951) Thorne, 1961, a nematode parasite of citrus plants in the Punjab. 7097

An attempt to extend the longevity of the burrowing nematode, *Radopholus similis*, with citrus root exudate. 7098

Decline of grapefruit trees in relation to citrus nematode populations and tree recovery after chemical treatment. 7106

The histological relationship of resistance to the citrus nematode in certain citrus rootstocks. 7114

Effect of soil exchangeable hydrogen and calcium ratio and the resulting pH on infection of citrus fibrous roots by *Phytophthora parasitica*. 7747

## CLERIDAE

The biological impact of the checkered beetles (Coleoptera: Cleridae) on populations of Ips bark beetles (Coleoptera: Scolytidae). 6565

## CLONES

Tobacco mosaic virus activity and growth of inoculated tobacco secondary single-cell clones. 6907

## CLONORCHIS

Lesions associated with liver fluke infection in a cat. 7587

## CLOSTRIDIUM

*Clostridium chavoei* common in normal adult dogs. 7222

Bacillary hemoglobinuria (redwater disease) in florida. 7617

## CLOVER

Varietal resistance to clover rot in white clover. 6694

Seed transmission of white clover mosaic and clover yellow mosaic viruses in red clover. 6760

Sampling alfalfa seed for clover seed chalcid damage. 7067

Paraquat for selective control of range weeds. 7125

## COAL TAR

Effect of ingested disinfectants on chicks. 7247

## COCCIDAE

North American species of *Ascheronia* parasitic on Aleyrodidae. 6464

## COCCIDIOIDES

The seasonal incidence of canine coccidiomycosis. 7475

## COCCIDIOSIS

*Eimeria maxima* in Georgia broilers. 7175

A mixture of diaveridine and sulfaquinoxaline as a coccidiostat for poultry. I. Preliminary studies on efficiency against *Eimeria tenella* and *E. necatrix* infections, and on toxicity in poultry. 7270

Studies on coccidiosis and vitaminA nutrition of broilers. 7451

Concurrent *Salmonella typhimurium* and *Eimeria necatrix* infections in chicks. 7518

A mixture of diaveridine and sulphaquinoxaline as a coccidiostat for poultry. 7604

Infection of goats with *Eimeria* spp. of sheep origin. 7610

## COCCINELLIDAE

*Nosema hippodamiae* n. sp., a microsporidian parasite of *Hippodamia convergens* Guerin (Coleoptera, Coccinellidae). 6577

## COCHLIOBOLUS

A toxic metabolite from *Ascochyta fabae* having antibiotic activity. 6841

Spore germinability in soil as an inherent character of *Cochliobolus sativus*. 7706



# SUBJECT INDEX

CORN

- COCKER SPANIEL DOGS  
Cockers and labradors more resistant to distemper. 7197
- COCKS  
Physiological and pharmacological factors which influence the incidence of acute pulmonary alterations following vagotomy in the domestic cock. 7136  
Control of the northern fowl mite, *Ornithonissus sylviarum* (C. + F.), with ronnel, Bayer 113/59, and Bayer 21/199. 7573
- COLD  
Cold-induced dormancy and its reversal in uredospores of *Puccinia graminis tritici*. 6713
- COLD STORAGE  
The preservation of *Babesia bigemina*, *Anaplasma centrale* and *A. marginale* by deep-freezing. 7239
- COLEOPTERA  
Studies of eugregarina in insects. 6470  
*Adelina sericethis* n. sp., a new coccidian parasite of scarabaeid larvae. 6474  
A virus disease of the Indian rhinoceros beetle, *Oryctes rhinoceros* (Linnaeus), caused by a new type of insect virus, *Rhabdionvirus oryctes* gen. n., sp. n.. 6551  
Membracidae attracted to black light. 6590  
A technique useful in comparing ponder-post beetle populations in the substructures of buildings. 6662  
Stored-grain insects and their control in New Jersey. 7647
- COLIAS  
A cytoplasmic polyhedrosis of the alfalfa caterpillar. 6638  
The utilization of *Bacillus thuringiensis* Berliner as a biotic insecticide to suppress the alfalfa caterpillar. 6640
- COLIAS EURYTHEME  
The utilization of *Bacillus thuringiensis* Berliner as a biotic insecticide to suppress the alfalfa caterpillar. 6640
- COLITIS X  
Colitis X of horses. 7485
- COLLETOTRICHUM  
A new crown rot of strawberry plants caused by *Colletotrichum fragariae*. 6772  
Mycelial protein comparisons of isolates of cucurbit anthracnose fungi. 6808  
Enzymes from conidia and matrix of *Colletotrichum orbiculare* grown on a natural medium. 6857  
Effects of sodium fluoride on growth of some pathogenic fungi. 6943  
A qualitative comparison of the amino acid content of acid hydrolysates from the mycelium of cucurbit anthracnose fungi. 7732
- COLLETOTRICHUM GOSSYPHII  
Susceptibility of *Gossypium arboreum* and *Gossypium hirsutum* to seedling anthracnose. 6710
- COLOR  
Orange stain, a storage disease of rice caused by *Penicillium puberulum*. 6895
- COLOSTRUM  
A simple test for deprivation of colostrum in piglets. 7292
- COMPLEMENT FIXATION  
Complement-fixation test for detecting Japanese encephalitis virus. 7198
- CONGENITAL TREMORS  
Cerebellar hypoplasia, hypomyelination, and congenital tremors of pigs, associated with prenatal hog cholera vaccination of sows. 7298
- CONIDIA  
Fungistatic effects of a soil bacterium on conidia and hyphae of *Helminthosporium sativum*. 6842  
Enzymes from conidia and matrix of *Colletotrichum orbiculare* grown on a natural medium. 6857
- CONNECTICUT  
Effects of an aerial DDT spray on aquatic insects in Connecticut. 7016
- CONOTRACHELUS  
Plum curculio control experiments in 1955-58. 7062
- COOLING  
Effects of rapid cooling to subzero temperatures on *Meloidogyne hapla* and *M. incognita*. 6887
- COOPERIA  
Thiabendazole as an anthelmintic in cattle and sheep. 7588  
The anthelmintic efficiency of Haloxon against the adult and immature stages of the gastro-intestinal strongyles of Nigerian Zebu cattle. 7614  
Efficacy of thiabendazole against *Cooperia* spp. and *Ostertagia ostertagi* in cattle. 7631
- COPEIDOSOMA  
The bean leaf skeletonizer, *Autoplusia egea*, and its control on bush snap beans in the everglades. 7006
- COPPER  
The effect of copper compounds on control of citrus rust mite with zineb. 7022  
Toxicity of copper sulfate in beef cattle. 7199  
Chronic copper poisoning in lambs. 7487
- COPPER COMPOUNDS  
Chemical control of bacterial blights of dry field beans in Michigan by foliage sprays applied by ground and air equipment. 6881
- COPPER SULFATE  
Toxicity of copper sulfate in beef cattle. 7199  
Salmonellosis A serious outbreak in a dairy herd. 7438
- CORIXIDAE  
Membracidae attracted to black light. 6590
- CORKY RINGSPOT (TOBACCO)  
Electron microscopy of tobacco rattle type viruses. allen jr, t l. 6844
- CORN  
Record of nematodes parasitising *Chilo zonellus* Swinhoe stem borer of maize. 6585  
The effects on house flies of adding wheat germ and corn oils to fly media. 6654  
The role of leaf microflora on epidemiology of the northern leaf blight of corn. 6697  
Suppression of corn head smut by in-furrow applications of pentachloronitrobenzene. 6747  
Monogenic chlorotic lesion resistance to *Helminthosporium turcicum* in corn seedlings. 6767  
The resistance of *Zea mays* to *Puccinia graminis*. 6794  
Relationship of water content and living cells to spread of *Diplodia zeae* in corn stalks. 6849  
Antibiotic production by *Streptomyces* sp. in corn rhizosphere. 6864  
Reproduction of *Pratylenchus penetrans* on corn roots cultured on various nutrient media. 6896

# SUBJECT INDEX

## CORN STOVER

- A virus infecting maize in South Dakota. 6927
- Influence of light on growth of *Aspergillus restrictus* in agar culture. 6957
- Effect of crop rotation on yields, stalk rot, and root rot of corn. 6964
- European corn borer control in peppers. 6990
- European corn borer populations in relation to the estimation of crop loss. 6995
- Artificial medium for rearing some lepidopterous corn insects. 7007
- Experiments for the control of sap beetles in sweet corn grown for processing. 7014
- Effectiveness of insecticides against the European corn borer and green peach aphid on peppers. 7017
- Increase of European corn borers following soil application of large amounts of dieldrin. 7028
- The effect of grain moisture upon development of the rice weevil in green corn. 7049
- Effectiveness of mixtures of acrylonitrile and carbon tetrachloride against three pests of stored corn. 7055
- The influence of selected nematode species and number of consecutive plantings of corn and sorghum on forage production, soil, and water use efficiency. 7087
- Factors affecting invasion of grains and seeds by *Aspergillus flavus* and effects of the fungus on germination of the seeds. 7644
- Preliminary evidence of resistance of high-amylose corn to the Angoumois grain moth. 7648
- The effect of oils on herbicidal activity of atrazine and linuron and of waxes and oils on the movement of EPTC in soil. 7657
- Heptachlor residues on corn stover in relation to dairy cattle feeding. 7670

## CORN STOVER

- Heptachlor residues on corn stover in relation to dairy cattle feeding. 7670

## CORYNBACTERIUM

- The effect of 2 hepta-5-methylbenzimidazole and hydrochloric acid on the growth of microflora found on poultry carcasses. 7652

## CORTICIUM

- Influence of temperature on rate of growth of five fungus pathogens of turfgrass and on rate of disease spread. 6745

## CORTISOL

- Effects of cortisol and adrenalectomy on induction of interferon by endotoxin. 7468

## CORYNEBACTERIUM

- Infecting seven-day-old alfalfa seedlings with wilt bacteria through wounded Cotyledons. 6789
- Persistence of *Corynebacterium insidiosum* in soil. 6833
- Comparative bactericidal properties of N-polyhaloethylthio hydantoins. 7737

## COTTON

- A seasonal study of diapause, reproductive activity and seasonal tolerance to insecticides in the boll weevil. 6496
- First records of hymenopterous parasites of yellow scale of cotton *Cerococcus hibisci* Green (Homoptera, Coccidae). 6629
- Potential use of Dylox and other insecticides in a control program for field crop pests in California. 6687
- Environmental and other factors influencing development of southwestern cotton rust (*Puccinia staksmanii*). 6708

- Susceptibility of *Gossypium arboreum* and *Gossypium hirsutum* to seedling anthracnose. 6710

- Internally infected seed as a source of inoculum for the primary cycle of bacterial blight of cotton. 6712

- A comparison of *Fusarium* wilt indices of cotton varieties with root-knot and sting nematodes as predisposing agents. 6727

- Infection of seedling cotton hypocotyl by an isolate *Rhizoctonia solani*. 6781

- Recognition of *Phymatotrichum* root rot of cotton and alfalfa in an aerial survey. 6858

- Prevention of symptom development of *Fusarium* wilt of cotton by isolates of a *Cephalosporium* species. 6877

- Common antigens in *Xanthomonas malvacearum* and *Gossypium hirsutum* and their possible relationship to host specificity and disease resistance. 6891

- Identification of three physiologic races of *Rhizoctonia solani* isolated from seedling cotton. 6905

- Factors affecting the pathogenesis of *Pythium* species on cotton (*Gossypium hirsutum* L) seedlings. 6920

- Relation of seed-borne fungi to boll rots of cotton. 6960

- Some effects of age, preimaginal habitat, and adult food on susceptibility of boll weevil to certain insecticides. 6983

- The effectiveness of chlorinated hydrocarbon insecticide mixtures for control of resistant and susceptible boll weevils. 6986

- Field control of cotton mites with Aramite aerial spray in California. 6998

- Greenbug control with systemic insecticides as influenced by fertilizer applications. 6999

- Effects of nectariless cottons on populations of three lepidopterous insects. 7029

- O-ethyl S-2(ethylthio)-ethyl alkylphosphonothioates as systemic insecticides. 7035

- Cotton insects in Nicaragua. 7036

- Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958. 7042

- Laboratory studies on the effectiveness of Chipman R-6199 against some cotton pests. 7070

- Control of boll weevils resistant to chlorinated hydrocarbons. 7074

- Stalk shredding and plowing as methods for controlling the pink bollworm, *Pectinophora gossypiella*. 7083

- Salt-marsh caterpillar control on cotton in Arizona. 7118

- Translocation of C14-labeled compounds in cotton and oaks. 7708

## COUMAPHOS

- A study of the histological effects of *Hypoderma lineatum* (De Vill.) on gullet tissue taken from systemically treated and untreated cattle. 7570

- Control of the northern fowl mite, *Ornithonyssus sylviarum* (C. + F.), with ronnel, Bayer 113/59, and Bayer 21/199. 7573

- Systemic insecticides for cattle grub control. 7574

- Organophosphate systemics as sprays and feed additives for cattle grub control. 7577

- The in vivo activity of several systemic insecticides against cattle grubs in South Dakota. 7582

- Toxicity to house fly larvae of droppings from chickens fed



# SUBJECT INDEX

## CULICIDAE

- insecticide-treated rations. 7584
- A colorimetric method for the determination of Co-Ral in animal tissues. 7665
- Toxicity of organic phosphorus insecticides to horses. 7694
- COVERED SMUT (SORGHUM)  
Screening sorghum varieties for resistance to the covered kernel smut fungus in Iraq. 6936
- COWPEAS  
Serological relationship between bean pod mottle virus and cowpea mosaic viruses from Arkansas and Trinidad. 6906  
Dodder transmission of citrange stunt virus, a virus associated with tatter leaf of citrus. 6952  
Predisposition to powdery mildew. 6975  
Mechanical transmission of a latent lemon virus. 6976
- CRABABPLES  
Studies on a virus causing stem grooving and graft-union abnormalities in Virginia Crab apple. 6843  
Biology and control of the apple seed chalcid in North Carolina. 7072
- CRACKING PROCESS  
Reaction of *Drosophila* to different varieties of tomatoes. 7032
- CRAYFISH  
Effect of *Latrodectus mactans tredecimguttatus* venom on the crayfish stretch receptor neurone. 7692
- CRESYLIC ACID  
Effect of ingested disinfectants on chicks. 7247
- CRICONEMA LATERALE  
*Criconema laterale* Khan and Siddiqi, 1963 (Nematoda, Criconematidae), a parasite of citrus plant in the Punjab. 7093
- CRICONEMATIDAE  
*Criconema laterale* Khan and Siddiqi, 1963 (Nematoda, Criconematidae), a parasite of citrus plant in the Punjab. 7093
- CRICNEMOIDES CURVATUM  
The effect of *Criconemoides curvatum* and *Pratylenchus penetrans* on woody ornamentals. 7099
- CRONARTIUM  
In vitro sporidial germination of *Cronartium fusiforme*. 7716
- CROP LOSSES  
European corn borer populations in relation to the estimation of crop loss. 6995
- CROP VARIETIES  
Sources of resistance to halo blight in *Phaseolus vulgaris*. 6698  
Variation in susceptibility to *Sclerotium rolfsii* among peanut varieties. 6755  
Varietal response in groundnut to *Sclerotium bataticola*. 6806  
Relationship of the genes conditioning resistance to *Erysiphe graminis* f. sp. *hordei* in some varieties of barley used to differentiate races of this pathogen. 6856  
Screening sorghum varieties for resistance to the covered kernel smut fungus in Iraq. 6936  
Anatomical aspects of resistance in sweetpotato to *Fusarium wilt*. 6956
- CROP YIELDS  
The effect of dapple apple and stem pitting on apple tree growth and yields in New Hampshire over a fourteen-year period. 6868  
Effect of crop rotation on yields, stalk rot, and root rot of corn. 6964
- The influence of selected nematode species and number of consecutive plantings of corn and sorghum on forage production, soil, and water use efficiency. 7087
- A study of factors influencing the effectiveness of diquat (101-ethylene-202-dipyridylum dibromide) for potato vine killing. 7127
- The effect of oils on herbicidal activity of atrazine and linuron and of waxes and oils on the movement of EPTC in soil. 7657
- CROTALARIA  
*Crotalaria spectabilis* intoxication in Rhesus monkeys. 7226  
Effect of feeding various levels *Crotalaria spectabilis* seed on the performance of chicks, turkeys, and pullets. 7342  
Pathologic changes associated with feeding various levels of *Crotalaria spectabilis* seed to poultry. 7508
- CROWN GALLS  
Vancomycin prevents crown gall. 6711  
Physiological factors involved in tumor production by the oleander knot pathogen, *Pseudomonas savastanoi*. 6802
- CROWN GALLS (PLANTS)  
An inexpensive, versatile oxygen electrode. 7756
- CROWN ROT (PARSLEY)  
Influence of soil temperature on a crown rot disease of parsley caused by *Phytophthora parasitica*. 6769
- CROWN ROT (STRAWBERRIES)  
A new crown rot of strawberry plants caused by *Colletotrichum fragariae*. 6772
- CROWN RUST (OATS)  
Measuring the pathogenic potential of *Puccinia coronata* var. *avenae*. 6879
- CRYPTOCOCCOSIS  
Feline cryptococcosis. 7448
- CRYPTOCOCCUS  
Feline cryptococcosis. 7448
- CRYPTOTERMES  
Fumigation of buildings to control the dry-wood termite, *Cryptotermes brevis*. 7646
- CUCUMBERS  
Metabolism of resistant and susceptible cucumber varieties infected with cucumber mosaic virus. 6813  
Transmission of the stubborn and psorosis A viruses of citrus to an herbaceous host. 6928  
Production of pectinolytic and cellulolytic enzymes by cucurbit anthracnose fungi. 6968  
Predisposition to powdery mildew. 6975  
Pickleworm control and residue studies with malathion and phosdrin. 7107
- CUCURBITA  
A qualitative comparison of the amino acid content of acid hydrolysates from the mycelium of cucurbit anthracnose fungi. 7732
- CUCURBITS  
Characteristics of an unidentified virus from cucurbits. 6834
- CULEX  
Microbial isolations from the mid-gut of *Culex tarsalis* Coquillett. 6511  
Suspected cases of western encephalitis on increase. 7174
- CULICIDAE  
Microbial isolations from the mid-gut of *Culex tarsalis* Coquillett. 6511  
A method for inoculation of mosquito larvae. 6514

# SUBJECT INDEX

## CULICOIDES

- Pythium sp. (Phycomycetes Pythiales) pathogenic to mosquito larvae. 6515
- Histopathological changes with age in the flight muscles of the African mosquito, *Eretmapodites chrysogaster*. 6554
- Transovarian transmission of some *Thelohania* (Nosematidae Microsporidia) in mosquitoes of California and Louisiana. 6564
- Experiments on prolongation of the life of mosquito larvae by underfeeding. 6581
- Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae. 6657
- Toxicological action of DDT on three species of mosquito larvae. 6658
- Bushbush, Ieri and Lukuni viruses, three unrelated new agents isolated from Trinidadian forest mosquitoes. 6683

## CULICOIDES

- The Culicoides of New Mexico (Diptera, Ceratopogonidae). 6446
- African horse-sickness. 7200

## CULM

- Effect of culm solidness on the survival of the wheat stem sawfly. 7041

## CULTURAL CONTROL (INSECTS)

- Inter-relationship between whitefly (*Bemisia tabaci* Gien) population and the incidence of leaf curl in bidi tobacco (*Nicotiana tabacum* L) in relation to different planting dates. 7044
- Incidence of predators and feasibility of their control through hand picking in lac cultivation on bush types of hosts. 7050

## CULTURAL CONTROL (PLANT DISEASES)

- Multiplication of *Xanthomonas vesicatoria* on tomato seedlings. 6796
- Heterothallism in *Pyrenophora teres*. 6809
- Inter-relationship between whitefly (*Bemisia tabaci* Gien) population and the incidence of leaf curl in bidi tobacco (*Nicotiana tabacum* L) in relation to different planting dates. 7044

## CULTURE MEDIA

- A modified azan staining technique for inclusion body viruses. 6540
- Serological studies of the cytoplasmic- and nuclear-polyhedrosis viruses of the silkworm, *Bombyx mori*. 6552
- A simplified purification technique for parasporal inclusions from certain varieties of *Bacillus thuringiensis*. 6600
- Growth and sporulation of submersed cultures of the fungus *Beauveria bassiana* in various media. 6621
- A selective medium for the isolation of *Beauveria tenella* and of *Metarrhizium anisopliae*. 6652
- Heterothallism in *Pyrenophora teres*. 6809
- Enzymes from conidia and matrix of *Colletotrichum orbiculare* grown on a natural medium. 6857
- Culture of the dwarf bunt fungus. 6944
- Inhibition of fungi by culture media previously exposed to light. 6954
- Artificial medium for rearing some lepidopterous corn insects. 7007
- The recovery of *Pasteurella multocida* from lyophilised cultures. 7265
- Brush technique for detection of fungus diseases. 7327

- Observations on an avian strain of *Pasteurella haemolytica*. 7332

- The characterization of a causative agent of virus pig pneumonia. 7413

- Observations on pathogenicity and immunogenicity of a cell-culture-modified foot-and-mouth disease virus. 7498

- Incidence of infection with *Trichinella spiralis* in dogs. 7611

- A simple method for the culture and recovery of larvae of intestinal nematodes of sheep. 7636

## CUMINUM CYMINUM

- Effect of SMDC on germination, plant growth, and fusarium wilt incidence of cummin (*Cuminum cyminum*). 6805

## CUPRESSUS

- Pomes annosus*. 6705
- Cypress poisoning. 7328

## CUSCUTA SUBINCLUSA

- Dodder transmission of citrange stunt virus, a virus associated with tatter leaf of citrus. 6952

## CUTICLE

- The free fatty acids and neutral lipids of the cuticular wax of the Mormon cricket, *Anabrus simplex*, Hald. 6605

## CYANAMIDE

- Insecticidal control of the Hessian fly. 6987

## CYCLOHEXENE-1,2-DICARBOXIMIDE, CIS-4-

- Isolation and characterization of a germination inhibitor from sugar beet fruit. 7721

## CYCLOHEXIMIDE

- Absorption, toxicity, and bio-assay of high-potency fungicides in *Prunus domestica*. 6765

## CYCLOHEXIMIDE THIOSEMICARBAZONE

- First and second year effects on *Cytospora* canker disease of Italian prune trees sprayed with four concentrations of cycloheximide thiosemicarbazone. 6764

## CYLINDROCLADIUM

- Infection of spruce seedlings by *Cylindrocladium scoparium*. 6715

## CYLINDROSPORIUM

- Control of *Cylindrosporium* leaf spot disease of *Rhus trilobata* and *Shepherdia argentea* seedlings. 6855

## CYSTEAMINE

- Cysteamine therapy of primary bovine ketosis. 7233
- The therapeutic use of cysteamine in bovine ketosis. 7507

## CYSTINE

- Amino-acid excretion in canine cystine-stone disease. 7530

## CYTOLOGY

- The spiral thread. 6563
- Histological studies on the deutocerebrum of *Poecilocerupicus* F (Orthoptera) and *Mantis religiosa* L (Dictyoptera). 6625
- Correlation between sperm redundancy and chiasma frequency. 6669
- Cytological and autoradiographic studies on *Sciara coprophila* salivary gland chromosomes. 6671
- Genetics and cytology of *Phytophthora*. 6752

## CYTOPLASM

- Synthesis of tobacco mosaic virus forms in nucleus and cytoplasm. 6700
- Studies on the aggregation of tobacco mosaic virus in the ground cytoplasm and chloroplasts of tomato. 6902



## SUBJECT INDEX

DDT

## CYTOSPORA CINCTA

First and second year effects on Cytospora canker disease of Italian prune trees sprayed with four concentrations of cycloheximide thiosemicarbazone. 6764

## D, 2,4-

The fight against weeds. 7121

Decomposition of 2,4-D and related phenoxyacetic acids by an *Arthrobacter* species. 7658

The mechanism of the interaction between soil organic matter and herbicide toxicity and the influence of pH on herbicide phytotoxicity. 7698

Physiological and metabolic changes induced by lethal concentrations of 2,4-D in the cocklebur (*Xanthium* spp.). 7705

## DACTYLELLA

A slender-spored *Dactylella* parasitic on *Pythium* oospores. *drechsleri*, c. 7728

## DACUS CUCURBITAE

Studies on the nutritional requirements of the fruit fly *Dacus cucurbitae* Coquillett (Diptera, Trypetidae). iv. responses of *D. cucurbitae* larvae to vitamin deficient diets. 6512

Studies on the nutritional requirements of the fruit fly *Dacus cucurbitae* Coquillett (Diptera, Trypetidae). iii. Development of a synthetic medium for *D. cucurbitae* larvae. 6513

## DAHLIA

A ringspot virus from dahlia. 6793

## DAIRY CATTLE

A report of the AVMA mastitis committee. The veterinary profession and programs of milk quality control. 7160

Fluorosis of non-industrial origin in a dairy herd. 7259

Identification and persistence of phage types of *Staphylococcus aureus* in dairy herds in Florida. 7291

A practitioner's mastitis control program. 7338

Isolation of *Mycoplasma* sp. from the oviducts of dairy cows. 7358

Abomasal impaction. 7383

Incidence of mastitis in cows and buffaloes in north west India. 7389

Ulceration of cow's teats caused by a virus. 7415

Salmonellosis A serious outbreak in a dairy herd. 7438

The economic loss associated with infectious bovine Rhinotracheitis in a dairy herd. 7463

Studies of a new penicillin, BRL 1921, for the treatment and control of staphylococcal mastitis in cows. 7556

Heptachlor residues on corn stover in relation to dairy cattle feeding. 7670

## DALAPON

Response of selected and random plantings of Johnsongrass (*Sorghum halepense*) to dalapon. 7124

The mechanism of the interaction between soil organic matter and herbicide toxicity and the influence of pH on herbicide phytotoxicity. 7698

## DAMPING-OFF (MELONS)

Control of *Pythium* damping-off of melons by simultaneous seeding and soil fumigation with chloropicrin. 6961

## DAPPLE (APPLES)

The effect of dapple apple and stem pitting on apple tree growth and yields in New Hampshire over a fourteen-year period. 6868

## DBSS

Evidence for two different pathogens of peanut pod rot. 6754

## DBTCE

Sym-dibromotetrachloroethane - a new fungistat for control of citrus fruit decay. 6742

## DDE

Insecticides in human fat in New Zealand. 7663

Organochlorine pesticides in Antarctica. 7684

## DDT

Syntheses of the aliphatic deuterium analogs of DDT and TDE and their toxicity and degradation when applied to adult house flies. 6485

Cumulative effect of sublethal doses of myristyl chloroacetate on a highly DDT-resistant strain of *Musca domestica* L. 6491

Behavioural responses to contact with DDT in *Anopheles atroparvus*. 6531

The effects of chemical insecticides and insecticidal adjuvants of a *Heliothis* nuclear polyhedrosis virus. 6557

Effect of DDT resistance on the development of malathion resistance in house flies. 6574

DDT-DEHYDROCHLORINASE iii. Solubilization of insecticides by lipoprotein. 6579

The effect of insecticides on transamination in the American cockroach. 6587

Action of DDT at an insect synapse. 6633

Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae. 6657

Toxicological action of DDT on three species of mosquito larvae. 6658

A preliminary report on mutations in the house fly. 6676

Methylenedioxyphenyl derivatives as synergists for carbamate insecticides on susceptible, DDT-, and parathion-resistant house-flies. 6679

The beet armyworm, *Spodoptera exigua*, an economic pest of citrus in California. 6982

The effectiveness of chlorinated hydrocarbon insecticide mixtures for control of resistant and susceptible boll weevils. 6986

European corn borer control in peppers. 6990

Influence of timing and insect biology on the effectiveness of insecticides applied for control of European pine shoot moth, *Rhyacionia buoliana*. 6991

Field testing of insecticides for control of the Nantucket pine moth, *Rhyacionia frustrana*, and the European pine shoot moth, *R. buoliana*. 7001

Problems in the control of mint insects. 7009

*Hyperodes humilis*, a new pest of sweet corn in the everglades, and its control. 7013

Experiments for the control of sap beetles in sweet corn grown for processing. 7014

The effects of DDT and malathion upon forest soil microarthropods. 7015

Effects of an aerial DDT spray on aquatic insects in Connecticut. 7016

Effectiveness of insecticides against the European corn borer and green peach aphid on peppers. 7017

Laboratory studies of three-lined potato beetle and control with various insecticides. 7025

The effect of *Lygus* bug control on the yield of lima beans. 7033

Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central

# SUBJECT INDEX

## DDT-DEHYDROCHLORINASE

Texas in 1958.	7042
Observations on soybean insects in Maryland.	7051
Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition.	7054
The influence of seasonal DDT applications upon arthropod populations in jack pine stands.	7056
Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California.	7065
Field tests with various insecticides for the control of Lygus bugs and the corn earworm on lima beans.	7066
Laboratory studies on the effectiveness of Chipman R-6199 against some cotton pests.	7070
Biology and control of the apple seed chalcid in North Carolina.	7072
Control of holl weevils resistant to chlorinated hydrocarbons.	7074
Brief history of aphid control on potatoes in south Florida, 1946-59.	7079
A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn.	7084
Control of army cutworms in alfalfa during 1959.	7104
Experiments on control of the sugar-beet wireworm in southern California bean fields.	7111
Aerial forest spraying against spruce budworm- A problem of mutual interest in Canada and the United States.	7117
Salt-marsh caterpillar control on cotton in Arizona.	7118
Field studies of house fly resistance to organophosphorus insecticides.	7569
House fly pupation under baseboards.	7575
Chlorinated hydrocarbon insecticides as soil treatments against the eye gnat Hippelates collusor (Townsend) in the laboratory.	7576
Pesticides and the soil fauna. I. effects of aldrin and DDT in an arable field.	7656
Insecticides in human fat in New Zealand.	7663
The excretion of dieldrin, DDT, and heptachlor epoxide in milk of dairy cows fed on pastures treated with dieldrin, DDT, and heptachlor.	7688
Persistence of DDT, aldrin, and lindane in some midwestern soils.	7672
DDT residue studies on peppers.	7675
DDT deposits on grapes as affected by growth and weathering.	7682
Organochlorine pesticides in Antarctica.	7684
Toxic chemicals.	7685
DDT-DEHYDROCHLORINASE	
DDT-DEHYDROCHLORINASE iii. Solubilization of insecticides by lipoprotein.	6579
DECOMPOSITION	
Relation of decomposing plant residues to root growth of alfalfa.	6840
Studies on the decomposition of sinalbin. ii. the composition products of sinalbin and their degradation pathways.	7741
Carbonyl sulphide from the decomposition of captan.	7746
Decomposition of sodium N-methyldithiocarbamate in soil.	7748

DEER	
Role of deer in epizootiology of leptospirosis.	7212
Tuberculosis in deer.	7421
An outbreak of malignant catarrh among the Pere David deer.	7499
DEFICIENCY DISEASES	
Thyroid dysplasia in the hutterer.	7242
DEFOLIANTS	
Control of Botrytis neck rot of onions by fungicidal dusts and desiccant chemicals.	6779
DEHYDROGENASES	
Histochemical studies on the dehydrogenases of potato affected by late blight.	6949
DELPHENE	
Use of an animal membrane in the evaluation of chemical repellents against the stable fly.	7568
DEMETON	
Soil injection as a means of applying systemic acaricides to fruit trees.	6997
Greenbug control with systemic insecticides as influenced by fertilizer applications.	6999
Citrus red mites resistant to demeton and ovex and their response to Tedion and Kelthane.	7040
Biology and control of the apple seed chalcid in North Carolina.	7072
DENSITY	
Rapid plant virus assay combines density-gradient centrifugation and Ouchterlony agar diffusion serological tests.	7712
DEOXYRIBONUCLEIC ACID	
Base composition and thermal denaturation of DNA isolated from Anaplasma marginale.	7295
Mode of action of 2,6 dichloro-4-nitroaniline (DCNA) in Rhizopus arrhizus.	7750
DERBIDAE	
A taxonomic study of the genus Cedusa in the New World (Homoptera: Derbidae).	6454
DERMACENTOR	
Ticks in the United States serve as vectors of disease.	7187
Transmission of equine piroplasmiasis by Dermacentor nitens Neumann.	7483
DERMANYSSUS	
Malathion dust for chicken mite control.	7580
DERMAPTERA	
Histology of the brain of Labidura riparia (Pallas) (Dermaptera).	6630
DERMATOBIASIS	
Dermatobiasis in cattle in South America.	7615
DERMATOLOGY	
Feline dermatology.	7439
DERMATOPHYTOSIS	
Dermatophytosis (ringworm) pathogenesis, diagnosis, and treatment.	7250
DERMOID CYSTS	
Dermoid sinus in the Rhodesian Ridgeback.	7521
DEROCERUS	
Vectors of alfalfa and bean yellow mosaic viruses in Ladino white clover.	6803
DESMIA	
Control of the grape leaf folder in California.	7064
DEUTERIUM	
Syntheses of the aliphatic deuterium analogs of DDT and TDE and their toxicity and degradation when applied to adult house flies.	6485



# SUBJECT INDEX

- DEUTOCEREBRUM**  
Histological studies on the deutocerebrum of *Poecilocus picus* F (Orthoptera) and *Mantis religiosa* L (Dictyoptera). 6625
- DEW**  
Dew, its significance and measurement in phytopathology. 7757
- DI-N-BUTYL SUCCINATE**  
Face fly control. 7564
- DIABROTICA**  
A mosaic virus transmitted by beetles and a grasshopper. 6926
- DIAGNOSIS**  
An improved technique for inducing diagnostic symptoms in tomato infected by potato spindle tuber virus. 6959  
An evaluation of the California mastitis test and the Negretti field test as indicators of subclinical bovine mastitis. 7299
- DIALYSIS**  
Peritoneal dialysis as an adjunct to *Leptospirosis* therapy in a dog. 7473
- DIANTHUS CARYOPHYLLUS**  
*Pseudomonas caryophylli* in carnation. I. Relation of soil temperature to symptom expression. 6734  
Pathogenicity, vitamin nutrition, and cultural characteristics of isolates of *Phytophthora parasitica* from carnation and other hosts in hawaii. 6768
- DIAPAUSE**  
A seasonal study of diapause, reproductive activity and seasonal tolerance to insecticides in the boll weevil. 6496  
Diapause and secondary parasites nullify the effectiveness of rose-aphid parasites in riverside, california, 1957-1958. 7058
- DIARRHEA**  
Occurrence and etiology of infectious calf diarrhea. 7228  
Diphenoxylate a useful drug in the symptomatic treatment of acute and chronic diarrhoea in domestic and wild animals. 7414  
The pathogenesis of diarrhea in the newborn calf, with special reference to physiologic functions and environmental conditions. 7436  
Colitis X of horses. 7485  
Mastitis, metritis and diarrhea in swine. 7514
- DIAZINON**  
Laboratory selection of normal and chlordane-resistant German cockroaches for resistance to Malathion and Diazinon. 6535  
Relationship between metabolism and differential toxicity in insects and mice of Diazinon, dimethoate, parathion, and acethion. 6570  
The biological evaluation of spray additives and solvents with *Blattella germanica* (Linn) and *Periplaneta americana* (Linn.). 6639  
Evaluation of chemicals for control of a spider mite complex on cherry and peach. 7003  
Experiments for the control of sap beetles in sweet corn grown for processing. 7014  
Control of the grape mealybug on apricots. 7030  
A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn. 7084  
Salt-marsh caterpillar control on cotton in Arizona. 7118  
Resistance of *Boophilus microplus* to organo-phosphorus insecticides. 7503  
Face fly control. 7564
- House fly control in pig parlors. 7566  
Field studies of house fly resistance to organophosphorus insecticides. 7569  
Toxicity to house fly larvae of droppings from chickens fed insecticide-treated rations. 7584
- DIBROMO-3-CHLOROPROPANE, 1,2-**  
Transmission of *Pseudomonas syringae* in peach trees by bud propagation. 6736
- DIBROMOTETRACHLOROETHANE, SYMMETRICAL**  
Sym-dibromotetrachloroethane - a new fungistat for control of citrus fruit decay. 6742
- DICHLORO-4-NITROANILINE, 2,6-**  
Control of *Botrytis* neck rot of onions by fungicidal dusts and desiccant chemicals. 6779  
Effects of 2,6-dichloro-4-nitroaniline on *Rhizopus* species and its comparison with other fungicides on control of *Rhizopus* rot of peaches. 6838  
Variations in tolerance of *Rhizopus* species to 2,6-dichloro-4-nitroaniline. 6839  
The mode of action of 2,6 dichloro-4-nitroaniline in *Rhizopus arrhizus* spores. 7729  
Mode of action of 2,6 dichloro-4-nitroaniline (DCNA) in *Rhizopus arrhizus*. 7750
- DICHLOROPHENE**  
The assessment of the value of topical applications for the treatment of contagious foot-rot in sheep, with particular reference to Dichlorophen. 7346
- DICHLOROPROPANE DICHLOROPROPENE MIXTURE**  
Hairy root (*Agrobacterium rhizogenes*) of field roses. 6829
- DICHLOROPROPENE, 1,3-**  
Population dynamics and fumigation studies of certain nematodes associated with roots of wheat in Nebraska. 7101
- DICHLOROPROPIONIC ACID, 2,2-**  
Response of selected and random plantings of Johnsongrass (*Sorghum halepense*) to dalapon. 7124
- DICHLORVOS**  
Face fly control. 7564  
Toxicity of organic phosphorus insecticides to horses. 7694  
Toxicological aspects of 2,2-dichlorovinyl dimethyl phosphate (DDVP) in cows, horses, and white rats. 7699
- DICOPOL**  
Evaluation of chemicals for control of a spider mite complex on cherry and peach. 7003  
Citrus red mites resistant to demeton and ovex and their response to Tedion and Kelthane. 7040  
Control of the grape leaf folder in California. 7064
- DICTYOCALUS**  
Limitations of lungworm vaccine. 7153  
Effect of diethylcarbamazine on parasitic bronchitis in calves. 7591  
Immunization experiments with lungworm larvae. 7592
- DIEBACK (MUSHROOMS)**  
Transmission of a virus disease of mushrooms by infected spores. 6890
- DIELDRIN**  
Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae. 6657  
Colonization and production of a dieldrin-resistant strain of *Anopheles quadrimaculatus* say. 6677  
Evaluation of insecticides for control of the Fuller rose

# SUBJECT INDEX

## DIETHYLCARBAMAZINE

- beetle on citrus in California. 7004
- The bean leaf skeletonizer, *Autopliusia egea*, and its control on bush snap beans in the everglades. 7006
- Problems in the control of mint insects. 7009
- Laboratory studies of three-lined potato beetle and control with various insecticides. 7025
- Increase of European corn borers following soil application of large amounts of dieldrin. 7028
- Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958. 7042
- Plum curculio control experiments in 1955-58. 7062
- Field tests with various insecticides for the control of Lygus bugs and the corn earworm on lima beans. 7066
- Current fruit weevil, *Pseudanthrenomus validus*, a pest of cultivated highbush blueberry. 7069
- Control of army cutworms in alfalfa during 1959. 7104
- Experiments on control of the sugar-beet wireworm in southern California bean fields. 7111
- Chlorinated hydrocarbon insecticides as soil treatments against the eye gnat *Hippelates collusor* (Townsend) in the laboratory. 7576
- The excretion of dieldrin, DDT, and heptachlor epoxide in milk of dairy cows fed on pastures treated with dieldrin, DDT, and heptachlor. 7668
- Epoxidation of aldrin and heptachlor in soils as influenced by autoclaving, moisture, and soil types. 7673
- Acute toxic effects upon livestock and meat and milk residues of dieldrin. 7677
- DIETHYLCARBAMAZINE
- Prophylactic therapy against dirofilariasis immitis. 7204
- Effect of diethylcarbamazine on parasitic bronchitis in calves. 7591
- Parafilaria multipapillosa in the horse. 7626
- Lungworm infection in cattle-Control and treatment. 7627
- DIETHYLSTILBESTROL
- Potentiation of diethylstilbestrol induced aortic ruptures of turkeys with thiouracil. 7509
- DIETHYLTOLUAMIDE
- Laboratory and field tests against mites and lice attacking poultry. 7562
- DIGESTION
- Mechanism of food transport in cattle-tick, *Hyalomma aegyptium*. 6562
- DIHYDROSTREPTOMYCIN
- Dihydrostreptomycin therapy of bovine vibriosis. 7161
- DIHYDROTACHYSTEROL
- Metastatic calcification induced by hytakerol in chickens infected with *Plasmodium gallinaceum*. 7427
- DILAN
- Control of army cutworms in alfalfa during 1959. 7104
- Salt-marsh caterpillar control on cotton in Arizona. 7118
- DIMETHYL-TETRAHYDRO-1,3,5,2H THIADIAZINE-2-THIONE, 3,5-
- Release of methylisothiocyanate from soils treated with Mylone (3,5-dimethyl-tetrahydro-1,3,5,2H thiadiazine-2-thione). 7744
- DIMETHOATE
- Control of the oriental rat flea with systemic insecticides fed to rats. 6542
- Relationship between metabolism and differential toxicity in insects and mice of Diazinon, dimethoate, parathion, and acethion. 6570

- Influence of timing and insect biology on the effectiveness of insecticides applied for control of European pine shoot moth, *Rhyacionia buoliana*. 6991
- Systemic insecticides for control of scales, leaf miners, and lace bugs. 7059
- Selective toxicity and animal systemic effectiveness of several organophosphates. 7563
- Face fly control. 7564
- Systemic insecticides for cattle grub control. 7574
- The in vivo activity of several systemic insecticides against cattle grubs in South Dakota. 7582
- DIMETHYL-4,4 -DIPYRIDYLUM, 1,1;-
- Paraquat for selective control of range weeds. 7125
- DINITROBUTYLPHENOL
- The mechanism of the interaction between soil organic matter and herbicide toxicity and the influence of pH on herbicide phytotoxicity. 7698
- DINITROPHENOLS
- Structure and pesticidal activities of derivatives of dinitrophenols. III. structure and acaricidal activity of certain carbonates of 2-alkyl-5-methyl-4,6-dinitrophenols and related compounds. 7696
- DIOXATHION
- Field testing of insecticides for control of the Nantucket pine moth, *Rhyacionia frustrana*, and the European pine shoot moth, *R. buoliana*. 7001
- Biology and control of the apple seed chalcid in North Carolina. 7072
- DIPHENAMID
- The mode of action of diphenamid (N, N-dimethyl 2, 2-diphenylacetamide) in plants. 7126
- DIPHENYLACETAMIDE, 2,2-
- The mode of action of diphenamid (N, N-dimethyl 2, 2-diphenylacetamide) in plants. 7126
- DIPLOCARPON ROSAE
- Hostiparasite interaction in blackspot disease of roses caused by *Diplocarpon rosae* Wolf. 6886
- DIPLODIA
- Relationship of water content and living cells to spread of *Diplodia zeae* in corn stalks. 6849
- Relation of seed-borne fungi to boll rots of cotton. 6960
- DIPLOPODA
- Histochemical studies of larval *Macracanthorhynchus ingens* and certain spirobolid millipeds. 6495
- DIPLOTEMNUS INSOLITUS
- The spiral thread. 6563
- DIPTERA
- The Culicoides of New Mexico (Diptera, Ceratopogonidae). 6446
- The black flies (Diptera0 Simuliidae) of western Massachusetts. 6457
- A preliminary study of the Syrphidae of Oklahoma (Diptera0 Syrphidae). 6469
- Studies on the nutritional requirements of the fruit fly *Dacus cucurbitae* Coquillett (Diptera, Trypetidae). III. Development of a synthetic medium for *D. cucurbitae* larvae. 6513
- Invertebrate pathology, cytology, and development. 6610
- A conopid fly parasite found in the honey bee. 6617
- DIPYRIDYLUM
- Dipyridylum residues in an aquatic environment. 7662



# SUBJECT INDEX

		DOGS
DIQUAT		
Darkness and the activity of diquat and paraquat on tomato, broad bean and sugar beet.	7119	
Dipyridylum residues in an aquatic environment.	7662	
DIQUAT.		
A study of factors influencing the effectiveness of diquat (101-ethyleue-202-dipyridylum dibromide) for potato vine killing.	7127	
DIROFILARIA		
Periodicity of Dirofilaria in the peripheral circulation of dogs.	7171	
Prophylactic therapy against dirofilaria immitis.	7204	
Two-day treatment with Thiacetarsamide for canine heartworm disease.	7378	
DISEASE TRANSMISSION		
Infectivity of Trypanosoma rhodesiense to tsetse flies fed through animal membranes.	6681	
DISEASES		
Leucodermia-like disease in the culture of giant African snail Achatina fulica Bowdich.	7134	
DISTILLATION		
Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae.	6657	
DISULFOTON		
Insecticidal control of the Hessian fly.	6987	
Greenbug control with systemic insecticides as influenced by fertilizer applications.	6999	
The effect of seed treatments with phorate and other systemic insecticides on the germination of wheat.	7027	
Systemic insecticides for control of scales, leaf miners, and lace bugs.	7059	
Control of the two-spotted spider mite on beans with systemic insecticides applied in the soil.	7076	
DITHIAZANINE		
Prophylactic therapy against dirofilaria immitis.	7204	
DITYLENCHUS		
Materials discharged by plant-parasitic nematodes.	7103	
DITYLENCHUS DIPSACI		
Evaluation of several techniques for screening alfalfa for resistance to Ditylenchus dipsaci.	7090	
DIURNAL RHYTHM		
Effects of various diurnal temperature profiles on host-parasite reaction of wheat varieties and Puccinia striiformis.	6903	
Diurnal emergence of Xyleborus ferrugineus (Coleoptera, Scolytidae) from cacao trunks in Ecuador and Costa Rica.	7057	
DIURON		
An evaluation of atrazine, simazine, monuron and diuron on Hawaiian sugar cane plantations.	7132	
DMC		
Control of Myocoptes muscivorus on guinea pigs.	7583	
DOGS		
Rabies in dogs and man sharply reduced.	7164	
Periodicity of Dirofilaria in the peripheral circulation of dogs.	7171	
Cockers and labradors more resistant to distemper.	7197	
Prophylactic therapy against dirofilaria immitis.	7204	
Aujeszky's disease in dogs.	7205	
Salmonellosis in the dog.	7221	
Clostridium chavoei common in normal adult dogs.	7222	
Suspected anthrax in a bitch.	7223	
Canine leukosis in Sweden.	7234	
Metaldehyde poisoning.	7254	
Osteogenic sarcoma of the oesophagus in a dog.	7262	
Elbow dysplasia in the German Shepherd dog.	7277	
Vaccination of puppies.	7303	
Suspected myasthenia gravis in a dog.	7336	
Congenital detachment of the processus anconeus in the dog.	7341	
Aminophylline poisoning in dogs.	7350	
Suspected skeletal scurvy in the dog.	7360	
Surgical interference in torsion of the canine stomach.	7366	
Calcification of the adrenal glands in a dog.	7370	
Suspected skeletal scurvy in the dog.	7372	
A possible case of purpura haemorrhagica in a dog.	7376	
Eosinophils of dogs.	7377	
A clinician's view of canine virus diseases.	7386	
The prenatat migration of Toxocara canis larvae and their relationship to infection in pups.	7397	
Pyloric stenosis in the dog.	7418	
A case of retention pyonephrosis in a Corgi bitch.	7419	
Pyloric stenosis in the dog.	7429	
Toxicity of some hydrazine tranquilisers to dogs.	7446	
Metaldehyde poisoning.	7449	
The differential diagnosis of bone tumours in the dog.	7450	
Apparent canine distemper caused by Klebsiella organisms.	7452	
Suspected skeletal scurvy in the dog.	7464	
Purpura haemorrhagica in a dog.	7465	
Vascular occlusion in a bitch.	7470	
Tonsillar carcinoma in rural dogs.	7471	
Peritoneal dialysis as an adjunct to Leptospirosis therapy in a dog.	7473	
The seasonal incidence of canine coccidiomycosis.	7475	
Suspected skeletal scurvy in a dog.	7490	
Synthetic oestrogen poisoning.	7500	
The clinical approach to abdominal disorders of the dog.	7502	
A possible case of purpura haemorrhagica in a dog.	7517	
Amino-acid excretion in canine cystine-stone disease.	7530	
Metaldehyde poisoning in the dog.	7532	
The radiographic features of calcosinosis circumscripta (Kalkgicht, calcium gout) in the dog.	7538	
Metaldehyde poisoning.	7549	
The zoonosis of animal parasites in Iraq. IV. Some unusual lesions associated with Opisthorchis tenuicollis infection.	7593	
Thiuram and piperazine combined, in the treatment of hook-		

# SUBJECT INDEX

## DORMANT OIL

- worm and roundworm infestation in the dog. 7599
- Pre-partum infestation of puppies with *Ancylostoma caninum*. 7603

The treatment of ankylostomiasis and of spirocerosis in dogs by the new compound, 2,6-diiodo-4-nitrophenol. 7607

Incidence of infection with *Trichinella spiralis* in dogs. 7611

A taenacide for dogs and cats. 7639

## DORMANT OIL

Control of pear borer and American plum borer in apple trees. 7024

## DORSET HORN SHEEP

Congenital goitre in Dorset-Horn lambs. 7542

## DORSILOPHA

Drosophilid survey of India. iII. the Drosophilida of Kashmir Valley. 6466

## DOSAGE

First and second year effects on *Cytospora* canker disease of Italian prune trees sprayed with four concentrations of cycloheximide thiosemicarbazone. 6764

## DOWCO 105

Toxicity of organic phosphorus insecticides to horses. 7694

## DOWCO 109

Control of the oriental rat flea with systemic insecticides fed to rats. 6542

Systemic insecticides for cattle grub control. 7574

The in vivo activity of several systemic insecticides against cattle grubs in South Dakota. 7582

## DOWNY MILDEW (PAPAVEE)

Control of downy mildew of opium poppy by root application of fungicides. 6788

## DOWNY MILDEW (LIMA BEANS)

Green-seeded downy mildew-resistant Fordhook lima beans. 6958

## DOWNY MILDEW (SUGAR BEETS)

Field experiments on sugar-beet downy mildew (*Peronospora farinosa*). 6717

## DRAFT CATTLE

Use of an animal membrane in the evaluation of chemical repellents against the stable fly. 7568

## DROSOPHILA

Drosophilid survey of India. iII. the Drosophilida of Kashmir Valley. 6466

The influence of selection pressure on the development of resistance in populations of *Tetranychus telarius* (L.). 6656

A preliminary report on mutations in the house fly. 6676

Drosophila breeding in refuse from tomato canneries. 7031

Reaction of Drosophila to different varieties of tomatoes. 7032

## DROSOPHILA BIPECTINATA

The effect of intraspecific and interspecific insemination on fecundity in *Drosophila malerkotliana* and *Drosophila bipectinata*. 6601

## DROSOPHILA MALERKOTLIANA

The effect of intraspecific and interspecific insemination on fecundity in *Drosophila malerkotliana* and *Drosophila bipectinata*. 6601

## DROSOPHILA MELANOGASTER

Evaluation of compounds of cadmium and related metals as reproduction inhibitors in insects. 6476

Effects of X-rays, tryptophan metabolites, and eye color mutants on the tumor-suppressor system in *Drosophila melanogaster*. 6668

Exchange and secondary nondisjunction in females of *Drosophila melanogaster* homozygous for X chromosome inversions. 6674

The role of *Drosophila melanogaster* in the epiphytology of *Geotrichum*, *Rhizopus*, and other fruit rots of tomato. 6716

Drosophila breeding in refuse from tomato canneries. 7031

Reaction of Drosophila to different varieties of tomatoes. 7032

## DROSOPHILA PSEUDO-OBSCURA

Studies on ovarian structure, function and growth in adult *Drosophila pseudo-obscura*. 6661

## DROSOPHILIDAE

Drosophilid survey of India. iII. the Drosophilida of Kashmir Valley. 6466

## DRUG THERAPY

Chemotherapy of the apple scab disease with butyric acid derivatives. 6801

The use of chemotherapeutic agents in animal tuberculosis. 7396

## DUCKLINGS

Factors other than groundnut relating to turkey X disease. 7477

## DURBA

Sporangial germination of *Sclerospora graminicola* and inoculation of *Pennisetum glaucum*. 6882

## DUSTING

Control of Botrytis neck rot of onions by fungicidal dusts and desiccant chemicals. 6779

## DWARF BUNT (WHEAT)

Time of year of infection of winter wheat by the dwarf bunt fungus. 6862

Culture of the dwarf bunt fungus. 6944

## DWARF DISEASE (PRUNUS)

Rate and pattern of prune dwarf virus movement within inoculated cherry trees. 6761

Variability in rates of movement of different strains of the virus responsible for prune dwarf. 6818

Sedimentation properties of two stone fruit viruses. 6940

## DWARF MISTLETOE

Some characteristics of dwarf mistletoe populations on red fir. 6850

## DYSPLASIA

Elbow dysplasia in the German Shepherd dog. 7277

## EARTHWORMS

A crystalliferous bacterium associated with a blister disease in the earthworm *Eisenia foetida* (Savigny). 6546

The life history and the morphology of the earthworm mite, *Uroactinia anchor* (Trouessart, 1902) (Acarina0 Uropodidae) with preliminary ethnological study of behavior. 6594

## ECHEVERIA

Stemphylium leafspot of Echeveria, Kalanchoe, and Sedum. 6916

## ECOLOGY

The horizontal and vertical distribution of flying insects near artificial windbreaks. 6462

## ECONOMICS

Economic parasitology. 7635

## EDEMA

The pathogenesis of gastro-enteritis associated with *Escherichia coli*. 7526



# SUBJECT INDEX

<b>EDEMA DISEASE</b>	
Groundnut toxicity as the cause of exudative hepatitis (oedema disease) of guinea-pigs.	7455
Transmission and characterization of edema disease of swine.	7535
<b>EDUCATION</b>	
Pesticide safety education.	7759
<b>EGG CONTAINERS</b>	
The microbiological contamination of egg shells and egg packing materials.	7651
<b>EGG PRODUCTION</b>	
Calcium requirements of turkey breeder hens.	7135
Economic importance of the chicken body louse.	7585
<b>EGGS</b>	
Mortality factors for the vetch bruchid, <i>Bruchus brachialis</i> .	7000
The effect of grain moisture upon development of the rice weevil in green corn.	7049
Effect of root extract of <i>Asparagus racemosus</i> and <i>Tagetes erecta</i> on hatching of eggs of <i>Meloidogyne javanica</i> and <i>Meloidogyne arenaria</i> .	7113
Potentialiation of chlortetracycline in laying chickens.	7140
Influence of vitamin D on avrious aspects of the reproductive process in mature hens.	7142
Survival of encysted eggs and larvae of the soybean cyst nematode, <i>Heterodera glycines</i> , ingested by swine.	7632
The microbiological contamination of egg shells and egg packing materials.	7651
<b>EIMERIA</b>	
<i>Eimeria maxima</i> in Georgia broilers.	7175
Concurrent <i>Salmonella typhimurium</i> and <i>Eimeria necatrix</i> infections in chicks.	7518
<b>ELECTRIC CIRCUITS</b>	
An inexpensive, versatile oxygen electrode.	7756
<b>ELECTROCHEMISTRY</b>	
An inexpensive, versatile oxygen electrode.	7756
<b>ELECTRODES</b>	
An inexpensive, versatile oxygen electrode.	7756
<b>ELECTRON MICROSCOPES</b>	
Microscopic study of bovine endometrium.	7751
<b>ELECTRON MICROSCOPY</b>	
Electron microscopy of tobacco rattle type viruses. allen jr, t l.	6844
The nature of stain uptake in ultrathin sections of tobacco mosaic virus.	6901
An electron microscope study of TMV lesions in <i>Nicotiana glutinosa</i> .	6955
Histologic and electron microscopic studies of agranulocytes and hemal and hemolymph nodes in cattle.	7545
Electron microscopy of the sheath surrounding the haustorium of <i>Erysiphe graminis</i> .	7711
<b>ELECTRONIC STRUCTURE</b>	
Syntheses of the aliphatic deuterium analogs of DDT and TDE and their toxicity and degradation when applied to adult house flies.	6485
<b>ELEPHANTS</b>	
Anthrax in Chester Zoo.	7506
<b>ELYMUS</b>	
Paraquat for selective control of range weeds.	7125

## ENTEROVIRUSES

<b>EMPHYSEMA</b>	
Emphysema with cardiac embassment in calves.	7453
<b>EMPOASCA</b>	
Vectors of alfalfa and bean yellow mosaic viruses in Ladino white clover.	6803
<b>ENATION MOSAIC (PEAS)</b>	
Comparisons of pea enation mosaic virus isolates.	6878
<b>ENCEPHALOMALACIA</b>	
Nigropallidal encephalomalacia in the horse.	7307
<b>ENDOCARDITIS</b>	
Vascular occlusion in a bitch.	7470
<b>ENDOMETRIUM</b>	
Changes in endometrium of vibrio fetus-infected and noninfected heifers.	7190
Microscopic study of bovine endometrium.	7751
<b>ENDOSULFAN</b>	
The bean leaf skeletonizer, <i>Autoplusia egea</i> , and its control on bush snap beans in the everglades.	7006
Thiodan, a promising chemical for control of the lesser peach tree borer.	7038
Soil treatments in lieu of spraying for plum curculio control in peach orchards.	7063
Brief history of aphid control on potatoes in south Florida, 1946-59.	7079
A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn.	7084
The toxicology of thiodan in several fish and aquatic invertebrates.	7697
<b>ENDOTOXEMIA</b>	
Colitis X of horses.	7485
<b>ENDRIN</b>	
Boll weevil susceptibility to toxaphene, endrin, and guthion in five Alabama localities.	6505
The effects of chemical insecticides and insecticidal adjuvants of a <i>Heliothis</i> nuclear polyhedrosis virus.	6557
The effect of insecticides on transamination in the american cockroach.	6587
Soil treatments in lieu of spraying for plum curculio control in peach orchards.	7063
Control of the grape leaf folder in California.	7064
Field tests with various insecticides for the control of lygus bugs and the corn earworm on lima beans.	7066
Laboratory studies on the effectiveness of Chipman R-6199 against some cotton pests.	7070
Control of army cutworms in alfalfa during 1959.	7104
Experiments on control of the sugar-beet wireworm in southern California bean fields.	7111
Salt-marsh caterpillar control on cotton in Arizona.	7118
<b>ENOCLEBUS NIGRIPES</b>	
The biological impact of the checkered beetles (Coleoptera: Cleridae) on populations of <i>Ips</i> bark beetles (Coleoptera: Scolytidae).	6565
<b>ENT A</b>	
A biotype of the spotted alfalfa aphid on alfalfa.	7046
<b>ENTERITIS</b>	
A haemolytic <i>cocco-bacillus</i> recovered from poultry.	7340
Prophylactic use of Framycetin sulphate in calves.	7442
<b>ENTEROVIRUSES</b>	
Isolation of enteroviruses from intestinal tract of swine.	7155
Purification of swine enteroviruses and swinepox viruses.	

# SUBJECT INDEX

## ENTOMOPHAGOUS INSECTS

7218

Characterization and classification of newly isolated avian enteric viruses. 7284

## ENTOMOPHAGOUS INSECTS

Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California. 7065

## ENTOMOGENOUS FUNGI

Spicaria rileyi (Farlow) Charles and Aspergillus flavus Link, entomogenous fungi of the cabbage looper, Trichoplusia ni (Hubner), in Indiana and Wisconsin. 6487

Pythium sp. (Phycomycetes Pythiales) pathogenic to mosquito larvae. 6515

Hemerocampa pseudotsugata McDunnough, a new host for Beauveria bassiana (Balsamo) Vuillemin. 6524

Fungus infection of insects via the alimentary tract. 6530

Pathogenicity of Spicaria rileyi to Pseudoplusia includens. 6536

The fungus Entomophthora erupta (Dustan) attacking the black grass bug, Irbisia solani (Heidemann) (Hemiptera, Miridae), in California. 6538

Beauveria densa, pathogenic for the larvae of Chilo zonellus. 6584

Bacteria and fungi associated with dead boll weevils (Anthonomus grandis) in a natural population. 6589

Toxins from the entomogenous fungus Metarrhizium anisopliae I. Production in submerged and surface cultures, and in inorganic and organic nitrogen media. 6618

Toxins from the entomogenous fungus Metarrhizium anisopliae. II. Symptoms and detection in moribund hosts. 6619

Growth and sporulation of submersed cultures of the fungus Beauveria bassiana in various media. 6621

Oral infection of second-instar nymphs of Schistocerca gregaria by Metarrhizium anisopliae. 6651

## ENTOMOLOGY

Evaluation of the needs of Oklahoma extension personnel relative to entomology problems. 6444

## ENTOMOPHTHORA

The fungus Entomophthora erupta (Dustan) attacking the black grass bug, Irbisia solani (Heidemann) (Hemiptera, Miridae), in California. 6538

## ENVIRONMENT

The influence of environmental and nutritional factors on growth and caste determination of female honey bees. 6519

Environmental and other factors influencing development of southwestern cotton rust (Puccinia stakmanii). 6708

The pathogenesis of diarrhea in the newborn calf, with special reference to physiologic functions and environmental conditions. 7436

Some factors that influence the deactivation of atrazine in soil. 7654

## ENZYMES

Studies on levels of reducing sugars and hydrolytic enzymes in relation to Botrytis head rot on safflower. 6703

Enzymes from conidia and matrix of Colletotrichum orbiculare grown on a natural medium. 6857

Production of pectinolytic and cellulolytic enzymes by Rhizopus stolonifer. 6919

Changes in multiple molecular enzymes in rusted bean leaves. 6923

Production of pectinolytic and cellulolytic enzymes by cucurbit anthracnose fungi. 6968

Decomposition of 2,4-D and related phenoxyacetic acids by an Arthrobacter species. 7658

The macerating enzyme of Rhizoctonia solani. 7701

Respiratory activity and enzymes for glucose catabolism in fungus spores. 7704

The effect of n-dodecylguanidine acetate on enzyme activity and the nucleotides of ribonucleic acid. 7749

## EOSINOPHILIC GRANULOMA

Maduromycosis of the bovine nasal mucosa. 7479

## EOSINOPHILS

Eosinophils of dogs. 7377

## EPIDEMIOLOGY

Symposium on requirements and interpretations of biometeorological observations. invitational papers presented at the fifty-fourth annual meeting of the American Phytopathological Society. corvallis, oregon, august 26-29, 1962. 6691

The role of leaf microflora on epidemiology of the northern leaf blight of corn. 6697

Epidemiology of glume blotch of wheat. 6888

A preliminary report on the occurrence of infectious laryngo-tracheitis of poultry in India. 7510

## EPIDERMOPHYTON

Mycosis in a manatee. 7285

## EPIDIDYMITIS

Ram epididymitis versus brucellosis. 7184

## EPITHELIUM

The influence of physical form of roughages and antibiotic administration on performance, carcass characteristics, health, of the rumen epithelium, rumen volatile fatty acids and liver abscesses of steers fed all-concentrate rations. 7347

## EPITRIX

Reappraisal of transmission of tobacco mosaic virus by insects. 6845

Laboratory studies of three-lined potato beetle and control with various insecticides. 7025

## EPIZOOTIC DISEASES

First poliomyelitis epizootic in large primates under study. 7178

Role of deer in epizootiology of leptospirosis. 7212

Epizootiology of equine viral rhinopneumonitis. 7286

Epizootiology of bovine myxovirus parainfluenza 3(sf-4) in Nebraska cattle as determined by antibody titers. 7398

A swine brucellosis epizootic. 7407

Immunologic and epizootiologic studies of epizootic bovine abortion. 7425

## EPN

Laboratory studies on the toxicity of various insecticides to different stages of the oriental fruit moth. 6988

Parathion and EPN residue studies on Concord grapes. 7683

## EPOXY RESINS

Epoxidation of aldrin and heptachlor in soils as influenced by autoclaving, moisture, and soil types. 7673

## EQUADOR

Potato yellow vein virus in Equador. 6826

## EQUINE INFECTIOUS ANEMIA

Current disease problems of horses. 7393

## EQUINE INFLUENZA

Current disease problems of horses. 7393

## EQUINE RHINOPNEUMONITIS

Epizootiology of equine viral rhinopneumonitis. 7286



# SUBJECT INDEX

## FALCULIFER ROSTRATUS

- EQUIPMENT**  
 A sampling technique for estimating populations of small arthropods in soil and vegetation. 6455  
 Membracidae attracted to black light. 6590  
 Use of an animal membrane in the evaluation of chemical repellents against the stable fly. 7568  
 Apparatus for insecticide assay. 7753  
 A fumigant vaporizer unit for use in laboratory experiments. 7758
- ERIOSOMA**  
 Control of the woolly apple aphid on roots of apple nursery stock. 7011
- ERWINIA**  
 Prevalence of *Erwinia amylovora* in apple buds as detected by phage typing. 6701  
 Relation of the iris borer to bacterial soft rot of iris. 6774  
 Comparative bactericidal properties of N-polyhaloethylthio hydantoins. 7737
- ERYSIPELAS BACTERINS**  
 Clinical appraisal of an avirulent oral erysipelas vaccine. 7492
- ERYSIPHE**  
 Relationship of genes conditioning pathogenicity of *Erysiphe graminis* f. sp. *hordei* on barley. 6828  
 Studies on the host range and pathogenicity of *Erysiphe polygoni*. 6924  
 Electron microscopy of the sheath surrounding the haustorium of *Erysiphe graminis*. 7711
- ERYSIPHE GRAMINIS HORDEI**  
 Relationship of the genes conditioning resistance to *Erysiphe graminis* f. sp. *hordei* in some varieties of barley used to differentiate races of this pathogen. 6856
- ERYTHROCYTES**  
 ATPase activity of the erythrocytic membrane in anaplasmosis and of *Anaplasma marginale*. 7317
- ERYTHROGENESIS**  
 Response of cows and calves to a Psittacosis-Lymphogranuloma group agents. 7186
- ESCHERICHIA**  
 Occurrence and etiology of infectious calf diarrhea. 7228  
 Standardized infections for laboratory evaluation of compounds against a chronic respiratory disease complex in chickens. 7315  
 Toxicity of nitrate nitrogen to cattle. 7423  
 The pathogenesis of diarrhea in the newborn calf, with special reference to physiologic functions and environmental conditions. 7436  
 Colitis X of horses. 7485
- ESCHERICHIA COLI**  
 The enteropathogenic effect of *Escherichia coli* in rabbits and pigs. 7324
- ESCHERICHIA COLI BACTERIN**  
 Inhibition of enzymes by the anthocyanin malvidin-3-monoglucoside. 7730
- ESCHERICHIA COLI BACTERINS**  
 Intensive veal production and a hitherto untried nitrofurant preliminary trial. 7329
- ESERINE**  
 Materials discharged by plant-parasitic nematodes. 7103
- ESOPHAGUS**  
 Osteogenic sarcoma of the oesophagus in a dog. 7262
- ESTIGMENE ACREA**  
 Salt-marsh caterpillar control on cotton in Arizona. 7118
- ESTROGENS**  
 Suspected synthetic oestrogen poisoning in mink. 7369  
 Synthetic oestrogen poisoning. 7500
- ETCH (REDPEPPERS)**  
 Identification of the viruses affecting commercial varieties of pepper (*Capsicum annuum*) in New Jersey. 6925
- ETHIDNINE**  
 Chlorophyll formation in *Euglena* as a test for herbicides. 7129
- ETHYL N,N-DIPROPYLTHIOCARBAMATE**  
 The effect of oils on herbicidal activity of atrazine and linuron and of waxes and oils on the movement of EPTC in soil. 7657
- ETHYLAMINE**  
 Control of *Penicillium* decay of oranges with certain volatile aliphatic amines. 6741
- ETHYLENE DIBROMIDE**  
 Distribution and sorption of liquid fumigants applied to wheat by recirculation. 6688  
 Black root rot of pine. 6771
- ETHYLENE DICHLORIDE**  
 Distribution and sorption of liquid fumigants applied to wheat by recirculation. 6688
- ETHYLENEDIAMINETETRAACETIC ACID**  
 The effectiveness of EDTA as a fish preservative. 7695
- EUBLEMMA AMABILIS**  
 Incidence of predators and feasibility of their control through hand picking in lac cultivation on bush types of hosts. 7050
- EUBLEMMA SILICULA**  
 Occurrence of *Eublemma silicula* Swinhoe as pest of bajra in Delhi. 7023
- EUGLENA**  
 Chlorophyll formation in *Euglena* as a test for herbicides. 7129
- EUGREGARINA**  
 Studies of eugregarina in insects. 6470
- EUTHANASIA**  
 A note on rabies and euthanasia in man. 7469
- EVERGLADES**  
 The bean leaf skeletonizer, *Autoplusia egea*, and its control on bush snap beans in the everglades. 7006  
*Hyperodes humilis*, a new pest of sweet corn in the everglades, and its control. 7013
- EXOCORTIS (CITRUS)**  
 Rapid-index methods for exocortis of citrus. 6718
- EXTENSION WORKERS**  
 Evaluation of the needs of Oklahoma extension personnel relative to entomology problems. 6444
- EXTREMITIES**  
 Elbow dysplasia in the German Shepherd dog. 7277
- EXUDATES**  
 Influence of root exudates of cacao and other plants on spore development of *Phytophthora palmivora*. 6947
- EYES**  
 Effects of X-rays, tryptophan metabolites, and eye color mutants on the tumor-suppressor system in *Drosophila melanogaster*. 6668
- FALCULIFER ROSTRATUS**  
 A study of the life history of the pigeon feather mite, *Falculifer rostratus* (Buchholz), 1869, in vivo and in vitro. 6493

# SUBJECT INDEX

- FASCIOLA**
- FASCIOLA**  
Immunity to *Fasciola hepatica* infection in albino rats vaccinated with irradiated metacercariae. 7638
- FASCIOLIASIS**  
Injectable Carbontetrachloride in the treatment of *Fasciola hepatica* infestation in lambs. 7608
- FAT BODY**  
Structure and metamorphic changes in the fat body of *Callosobruchus maculatus* (F.) (Bruchidae, Coleoptera). 6606
- FATS**  
Insecticides in human fat in New Zealand. 7663
- FATTY ACIDS**  
The free fatty acids and neutral lipids of the cuticular wax of the Mormon cricket, *Anabrus simplex*, Hald. 6605  
  
The influence of physical form of roughages and antibiotic administration on performance, carcass characteristics, health, of the rumen epithelium, rumen volatile fatty acids and liver abscesses of steers fed all-concentrate rations. 7347
- FEATHERS**  
A study of the life history of the pigeon feather mite, *Falculifer rostratus* (Buchholz), 1869, in vivo and in vitro. 6493
- FECES**  
Toxicity to house fly larvae of droppings from chickens fed insecticide-treated rations. 7584
- FEED**  
Mycotoxicosis and animal disease. 7152  
Toxicity in groundnuts. 7156  
Groundnut toxicity. 7264  
Groundnut toxicity. 7323  
Xanthomatosis in laying hens - a case report. 7391  
Evidence for a difference in toxicity between common and hairy vetch seeds for chicks. 7687
- FEED ADDITIVES**  
The potential role of a feeding stimulant used in combination with the nuclear polyhedrosis virus of *Heliothis*. 6479  
  
A feeding stimulant to increase effectiveness of, and a field test with, a nuclear polyhedrosis virus of *Heliothis*. 6597  
  
Influence of dietary zinc, calcium and vitamin D for hens on zinc content of tissues and eggs and on bone composition. 7137
- FEED CONCENTRATES**  
The influence of physical form of roughages and antibiotic administration on performance, carcass characteristics, health, of the rumen epithelium, rumen volatile fatty acids and liver abscesses of steers fed all-concentrate rations. 7347
- FEED TOXICITY**  
Diagnosis and causes of nitrate poisoning. 7513
- FEEDING**  
Experiments on prolongation of the life of mosquito larvae by underfeeding. 6581  
  
Biology of the convergent lady beetle when fed a spotted alfalfa aphid diet. 6603  
  
A cage for feeding insects through membranes. 6929  
  
Effect of melatonin on thyroid hormone secretion rate and feed consumption of female rats. 7444
- FELINE INFECTIOUS ENTERITIS**  
Isolation of a virus from a condition simulating feline panleucopaenia in a leopard. 7380
- FENTHION**  
Selective toxicity and animal systemic effectiveness of several organophosphates. 7563  
  
House fly control in pig parlors. 7566
- FENUSA**  
Systemic insecticides for control of scales, leaf miners, and lace bugs. 7059
- FERBAM**  
Infection of spruce seedlings by *Cylindrocladium scoparium*. 6715
- FERRETS**  
A report on the dosage of pentobarbitone sodium required to induce anaesthesia in ferrets. 7440
- FERTILITY**  
Evaluation of compounds of cadmium and related metals as reproduction inhibitors in insects. 6476  
  
Mortality and fertility response of *Musca domestica* Linnaeus to certain known mutagenic or anti-tumor agents. 6566  
  
The effect of intraspecific and interspecific insemination on fecundity in *Drosophila malerkotliana* and *Drosophila bipectinata*. 6601  
  
Effects of geographic isolation and host association on the evolution of sexuality in *Helminthosporium*. 6835  
  
Effect of temperature and humidity on the fecundity and development of *Cadra cautella* Wlk. in wheat. 7071  
  
Isolation of *Mycoplasma* sp. from the oviducts of dairy cows. 7358
- FERTILIZERS**  
Fertilizer and soil-fumigation effects on *Pythium splendens* in south Florida. 6934
- FESTUCA**  
Paraquat for selective control of range weeds. 7125  
  
Gastrointestinal nematodes in beef yearlings. 7215
- FETAL DEATH**  
Chronologic evaluation of tetragenicity in sheep fed *Veratrum californicum*. 7249  
  
Cerebellar hypoplasia, hypomyelinogenesis, and congenital tremors of pigs, associated with prenatal hog cholera vaccination of sows. 7298  
  
Equine viral abortion in western Montana. 7334  
  
The prenatal migration of *Toxocara canis* larvae and their relationship to infection in pups. 7397  
  
Iron deficiency anemia as a cause of stillbirths in swine. 7437
- FETAL SKIN**  
Fetal skin harbors most microorganisms. 7214
- FETUS**  
Changes in endometrium of vibrio fetus-infected and noninfected heifers. 7190  
  
Ovine abortion virus in ewes and fetuses. 7195
- FIBROUS DYPLASIA**  
Fibrous dysplasia in a monkey and a kudu. 7555
- FIELD CROPS**  
Bionomics and control of certain *Plusiinae* and studies of an associated nuclear polyhedrosis virus. 6992  
  
Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California. 7065
- FILENCHUS**  
On two plant parasitic nematodes from a cauliflower field in the Punjab. 7092



# SUBJECT INDEX

## POWLPOX VIRUS

- FISH**  
 Dipyrldylum residues in an aquatic environment. 7662  
 Organochlorine pesticides in Antarctica. 7684  
 The effectiveness of EDTA as a fish preservative. 7695  
 The toxicology of thiodan in several fish and aquatic invertebrates. 7697
- FLAT APPLE (APPLES)**  
 The flat apple disease. 6729
- FLAXSEED**  
 Effect of methyl bromide and hydrocyanic acid fumigation on the germination of flax seeds. 7650
- FLOCCULATION**  
 Bentonite flocculation a rapid, sensitive serological test for the detection of plant virus antigens. 6897
- FLORA**  
 The fungous flora of nonsuberized roots of poorly growing cherry trees. 6749
- FLORIDA**  
 Fertilizer and soil-fumigation effects on *Pythium splendens* in south Florida. 6934  
 Identification and persistence of phage types of *Staphylococcus aureus* in dairy herds in florida. 7291  
 Bacillary hemoglobinuria (redwater disease) in florida. 7617
- FLORISIL**  
 Analysis of egg yolk and poultry tissues for chlorinated insecticide residues. 7681
- FLOWERING**  
 The effect of foraging behavior of moving honey bee colonies to crops before or after flowering has begun. 6529
- FLUORESCENT ANTIBODY TECHNIC**  
 Progressive distribution of southern bean mosaic virus antigen in bean leaves determined with a fluorescent antibody stain. 6969  
 A fluorescent antibody study of infectious bronchitis virus. 7434  
 Identification of *Mycoplasma gallisepticum* in lesion tissue by immunofluorescence. 7445  
 Immunofluorescent studies of virus-induced rabbit papilloma (Shope) in vitro. 7504
- FLUORIDES**  
 Effect of fluorides in cattle. 7365
- FLUORINE**  
 Toxic chemicals. 7740
- FLUORINE COMPOUNDS**  
 Toxicity of organic fluorine compounds. 7739
- FLUOROSIS**  
 Toxic chemicals. 7245  
 Fluorosis of non-industrial origin in a dairy herd. 7259  
 Fluorosis causes lameness. 7260
- FOLIAR APPLICATION**  
 Response of selected and random plantings of Johnsongrass (*Sorghum halepense*) to dalapon. 7124
- FOLIC ACID**  
 Inhibition of enzymes by the anthocyanin malvidin-3-monoglucoside. 7730
- FOLPET**  
 Infection of spruce seedlings by *Cylindrocladium scoparium*. 6715
- FOMES**  
*Fomes annosus*. 6705  
 Autumn and winter sporulation by basidiocarps of *Fomes annosus*. 6871
- FOOD**  
 Some effects of age, preimaginal habitat, and adult food on susceptibility of boll weevil to certain insecticides. 6983
- FOOD ADDITIVES**  
 Possible hazards in the veterinary use of antibiotics with particular reference to their use as food additives. 7146  
 Organophosphate systemics as sprays and feed additives for cattle grub control. 7577
- FOOD PRESERVATION**  
 The effectiveness of EDTA as a fish preservative. 7695
- FOOD STORAGE**  
 The relation between storage molds and damage in high-moisture rice in aerated storage. 6894  
 Development of granary weevils and storage fungi in columns of wheat- II. . 7643  
 Influence of grain moisture and storage temperature on the effectiveness of malathion as a grain protectant. 7649
- FOOT ROT (ANIMALS)**  
 The assessment of the value of topical applications for the treatment of contagious foot-rot in sheep, with particular reference to Dichlorophen. 7346  
 Foot-rot in feeding sheep. 7404
- FOOT-AND-MOUTH DISEASE**  
 Infectivity stability of foot-and-mouth disease virus. 7173  
 Foot-and-mouth disease vaccine-production of antigen in culture. 7177  
 Fatal strike caused by *Chrysomia bezziana* in cattle and buffaloes. 7633
- FOOT-AND-MOUTH DISEASE VIRUS**  
 Observations on pathogenicity and immunogenicity of a cell-culture-modified foot-and-mouth disease virus. 7498
- FORAGE PLANTS**  
 The effect of foraging behavior of moving honey bee colonies to crops before or after flowering has begun. 6529
- FOREST SOILS**  
 The effects of DDT and malathion upon forest soil microarthropods. 7015
- FOREST SURVEYS**  
 Forest-insect surveys in the central Rocky Mountains. 7077
- FORESTRY**  
 Forest-insect surveys in the central Rocky Mountains. 7077
- FORESTS**  
 Bushbush, Ieri and Lukuni viruses, three unrelated new agents isolated from Trinidadian forest mosquitoes. 6683
- FORMALDEHYDE**  
 The relative value of formalin and betapropiolactone as inactivating agents for Newcastle disease vaccine. 7231  
 Factors influencing the survival of coliforms in the dust of deep litter houses. 7344  
 Foot-rot in feeding sheep. 7404  
 Resistance of egg-adapted canine distemper virus to formalin\* 7462
- FORMICIDAE**  
 A study of mealybug populations (*Dysmicoccus brevipes* (Ckl.)) in an ant-free field. 6994
- POWL CHOLERA**  
 Observations on an avian strain of *Pasteurella haemolytica*. 7332
- POWLPOX VIRUS**  
 Fowlpox virus from chickens with hemorrhagic tracheitis. 7381

# SUBJECT INDEX

- FOXES**
- FOXES**  
 Fluorescent antibody studies for rabies in wildlife. 7163  
 Wildlife rabies increases. 7180  
 Effect of rabies virus inoculated into foxes and skunks. 7207
- FRUIT**  
 Sym-dibromotetrachloroethane - a new fungistat for control of citrus fruit decay. 6742  
 Variations in tolerance of Rhizopus species to 2,6-dichloro-4-nitroaniline. 6839  
 Sedimentation properties of two stone fruit viruses. 6940  
 The infectious nature of pollen from certain virus-infected stone fruit trees. 6963
- FRUIT TREES**  
 Soil injection as a means of applying systemic acaricides to fruit trees. 6997
- FUMIGANTS**  
 Distribution and sorption of liquid fumigants applied to wheat by recirculation. 6688  
 Susceptibility of certain stages of the rice weevil to a methallyl chloride fumigant formulation in wheat of various moistures. 7045  
 Stored-grain insects and their control in New Jersey. 7647  
 A fumigant vaporizer unit for use in laboratory experiments. 7758
- FUMIGATION**  
 Susceptibility of life stages of the Mexican fruit fly to fumigation with ethylene chlorobromide. 6985  
 Germination of cereal, sorghum, and small legume seeds after fumigation with hydrogen phosphide. 7645  
 Fumigation of buildings to control the dry-wood termite, Cryptotermes brevis. 7646  
 Effect of methyl bromide and hydrocyanic acid fumigation on the germination of flax seeds. 7650
- FUNGI**  
 Pathogenicity of externally occurring fungi to Reticulitermes flavipes. 6634  
 The fungous flora of nonsuberized roots of poorly growing cherry trees. 6749  
 Mycelial protein comparisons of isolates of cucurbit anthracnose fungi. 6808  
 The utilization of ligno-cellulose by common mold fungi. 6816  
 Effects of sodium fluoride on growth of some pathogenic fungi. 6943  
 Insects associated with wounds on trees that develop oak wilt. 6989  
 Development of granary weevils and storage fungi in columns of wheat- II. . 7643
- FUNGICIDE RESISTANT FUNGI**  
 Biphenyl-resistant citrus green mold reported in Florida. 6914
- FUNGICIDES**  
 Trichlorobenzene as a soil toxicant against four wood-decaying soil fungi. 6735  
 Sym-dibromotetrachloroethane - a new fungistat for control of citrus fruit decay. 6742  
 Antifungal phenolic acids in apple fruits after infection with Sclerotinia fructigena. 6746  
 Suppression of corn head smut by in-furrow applications of pentachloronitrobenzene. 6747
- Some observations of peanut leaf rust and Cercospora leaf spots in Texas. 6762  
 Control of Botrytis neck rot of onions by fungicidal dusts and desiccant chemicals. 6779  
 Mechanism of soil fungistasis. 6787  
 Control of downy mildew of opium poppy by root application of fungicides. 6788  
 On the fungistatic and fungicidal properties of an anti-biotic produced by Penicillium rubrum. 6791  
 Disinfection of tomato seed infested with Xanthomonas vesicatoria. 6797  
 Fungistatic effects of a soil bacterium on conidia and hyphae of Helminthosporium sativum. 6842  
 Control of Cylindrosporium leaf spot disease of Rhus trilobata and Shepherdia argentea seedlings. 6855  
 A method for evaluating soil fungicides. 6939  
 Effect of fungicides on the respiration of three species of soil fungi. 6941  
 Influence of oat and alfalfa residues on soil respiration, fungistasis, and survival of Verticillium albo-atrum. 7723  
 Carbonyl sulphide from the decomposition of captan. 7746
- FUNGUS DISEASES (ANIMALS)**  
 Brush technique for detection of fungus diseases. 7327
- FUNGUS DISEASES (PLANTS)**  
 Varietal resistance to clover rot in white clover. 6694  
 The role of leaf microflora on epidemiology of the northern leaf blight of corn. 6697  
 Susceptibility of Gossypium arboreum and Gossypium hirsutum to seedling anthracnose. 6710  
 A probabilistic analysis of fungus control by foliar application of chemicals. 6726  
 Influence of temperature on rate of growth of five fungus pathogens of turfgrass and on rate of disease spread. 6745  
 Antifungal phenolic acids in apple fruits after infection with Sclerotinia fructigena. 6746  
 Phytophthora root rot of alfalfa in Minnesota. 6751  
 Genetics and cytology of Phytophthora. 6752  
 Evidence for two different pathogens of peanut pod rot. 6754  
 Fungi attacking seeds in dry seed-beds. 6759  
 Some observations of peanut leaf rust and Cercospora leaf spots in Texas. 6762  
 First and second year effects on Cytospora canker disease of Italian prune trees sprayed with four concentrations of cycloheximide thiosemicarbazone. 6764  
 Fusarium wilt (race2) of tomato effect of lime and micro-nutrient soil amendments on disease development. 6775  
 Control of Botrytis neck rot of onions by fungicidal dusts and desiccant chemicals. 6779  
 Cancroid spot of citrus. 6786  
 Control of downy mildew of opium poppy by root application of fungicides. 6788  
 On the fungistatic and fungicidal properties of an anti-biotic produced by Penicillium rubrum. 6791  
 Effect of SMDC on germination, plant growth, and fusarium wilt incidence of cumin (Cuminum cyminum). 6805  
 Varietal response in groundnut to Sclerotium bataticola.



# SUBJECT INDEX

## GENETICS

- 6806  
Calcium nutrition in relation to the black shank disease of tobacco. 6825
- Control of *Cylindrosporium* leaf spot disease of *Rhus trilobata* and *Shepherdia argentea* seedlings. 6855
- A new race of *Plasmodiophora brassicae* affecting badger shipper cabbage. 6898
- Pathogenicity of *Phacidium abietis*. 6911
- Control of the charcoal root disease of white fir by fall soil fumigation. 6913
- Biphenyl-resistant citrus green mold reported in Florida. 6914
- Screening sorghum varieties for resistance to the covered kernel smut fungus in Iraq. 6936
- FUNGUS GROWTH INHIBITORS  
Inversion phenomenon induced by nabam derivatives. 6728
- FURAZOLIDONE  
Amoeba disease of the honey bee, *Apis mellifera* Linnaeus, and an attempt at its chemical control. 6533
- The treatment of infectious sinusitis of turkeys with Furazolidone. 7511
- FURNITURE  
Fumigation of buildings to control the dry-wood termite, *Cryptotermes brevis*. 7646
- FUSARIUM  
The influence of various nitrogen compounds on sexual reproduction in *Hypomyces solani* f. *cucurbitae*. 6699
- Semeiology of *Fusarium* wilt of tomato. 6719
- A comparison of *Fusarium* wilt indices of cotton varieties with root-knot and sting nematodes as predisposing agents. 6727
- Effects of *Meloidogyne* spp. and *Tylenchorhynchus claytoni* on pea wilt incited by *Fusarium oxysporum* f. *pisi* race 1. 6732
- Influence of temperature on rate of growth of five fungus pathogens of turfgrass and on rate of disease spread. 6745
- Wilt-incitant *Fusarium oxysporum* f. *carthami* present in seed from infected safflower. 6785
- Addition of fungal cell-wall components to soil for biological disease control. 6822
- Prevention of symptom development of *Fusarium* wilt of cotton by isolates of a *Cephalosporium* species. 6877
- Effect of fungicides on the respiration of three species of soil fungi. 6941
- Fusarium* yellows and rhizome rot of common ginger. 6945
- Inhibition of fungi by culture media previously exposed to light. 6954
- Anatomical aspects of resistance in sweetpotato to *Fusarium* wilt. 6956
- Relation of seed-borne fungi to boll rots of cotton. 6960
- Spore germination and carbon metabolism in *Fusarium solani*. i. requirements for spore germination. 7709
- Pathogenicity of chlorinated-nitrobenzene-tolerant strains of *Hypomyces solani* f. *cucurbitae* race 2. 7713
- Tolerance to chlorinated nitrobenzenes in *Hypomyces solani* f. *cucurbitae* and its mode of inheritance. 7738
- FUSARIUM OXYSPORUM  
Effect of SHDC on germination, plant growth, and fusarium wilt incidence of cumin (*Cuminum cyminum*). 6805
- GALLERIA  
The occurrence of polyphenoloxidase in the hemocytes of actively immunized larvae of the greater wax moth, *Galleria mellonella*. 6510
- Some effects of X-radiation on larvae of *Galleria mellonella*. 6541
- Toxins from the entomogenous fungus *Metarrhizium anisopliae* I. Production in submerged and surface cultures, and in inorganic and organic nitrogen media. 6618
- Toxins from the entomogenous fungi *Metarrhizium anisopliae*. II. Symptoms and detection in moribund hosts. 6619
- GALLSTONES  
Cholelithiasis causing obstructive jaundice in a Boxer dog. 7248
- GAME ANIMALS  
*Brucella* agglutinins in East African game animals. 7484
- GAME BIRDS  
Some congenital abnormalities in the beaks and skulls of wildfowl. 7343
- A survey and review of parasitic diseases of wild and game birds in Great Britain. 7618
- GAMMA RAYS  
Use of insects for their own destruction. 6672
- GANTOX  
Control of pear borer and American plum borer in apple trees. 7024
- GASTROENTERITIS  
The pathogenesis of gastro-enteritis associated with *Escherichia coli*. 7333
- Lactogenic immunity to transmissible gastroenteritis of swine. 7335
- Bacterial gastro-enteritis outbreaks in cats. 7374
- Salmonellosis in slaughterhouses in Israel. 7375
- Bacterial gastro-enteritis in cats. 7400
- The pathogenesis of gastro-enteritis associated with *Escherichia coli*. 7526
- GASTROINTESTINAL SYSTEM  
Recovery of aster yellows from excised organs of insect vectors. 6770
- Gastrointestinal nematodes in beef yearlings. 7215
- Porcine gastric ulcers in the United States0 a review. 7263
- GENES  
Relationship of genes conditioning pathogenicity of *Erysiphe graminis* f. sp. *hordei* on barley. 6828
- Relationship of the genes conditioning resistance to *Erysiphe graminis* f. sp. *hordei* in some varieties of barley used to differentiate races of this pathogen. 6856
- Use of rust (*Puccinia helianthi*) races to discover new gene pools for rust resistance in sunflower (*Helianthus annuus*). 6880
- GENETICS  
Genetics and cytology of *Phytophthora*. 6752
- Genetic model for physiologic studies of mechanisms governing development of infection type in wheat stem rust. 6876
- The population genetics of the potato cyst-nematode, *Heterodera rostochiensis*, mathematical models to stimulate the effects of growing eelworm-resistant potatoes bred from *Solanum tuberosum* ssp. *andigena*. 7100
- The enteropathogenic effect of *Escherichia coli* in rabbits and pigs. 7324
- Pathogenicity of chlorinated-nitrobenzene-tolerant strains of *Hypomyces solani* f. *cucurbitae* race 2. 7713

# SUBJECT INDEX

## GEOGRAPHY

### GEOGRAPHY

Effects of geographic isolation and host association on the evolution of sexuality in *Helminthosporium*. 6835

### GEOMETRIDAE

The pathology of a nuclear polyhedrosis of *Rachiplusia ou*- (Guenee) (Lepidoptera) Noctuidae). 6608

### GEOTRICHUM

The role of *Drosophila melanogaster* in the epiphytology of *Geotrichum*, *Rhizopus*, and other fruit rots of tomato. 6716

### GERANIUM

Differentiation of viruses transmitted from *Pelargonium hortorum*. 6865

### GERM-FREE LIFE

Hog cholera is on the way out. 7145

A report of the AVMA mastitis committee. The veterinary profession and programs of milk quality control. 7160

*Salmonella* problem receives primary attention at AVMA council meeting. 7170

Psoroptic cattle scabies eradication activities for 1962. 7193

Granulocytopoiesis in germfree mice. 7251

Prenatal hog cholera infection a potential source of hog cholera. 7297

Conferences appraise hog cholera eradication efforts. 7319

Evaluation of problems related to introduction of secondary specific-pathogen-free (SPF) boars into SPF and Non-SPF herds. 7534

A successful anaplasmosis eradication program. 7552

### GHIBBERELLA

Factors affecting resistance of wheat to scab caused by *Gibberella zeae*. 6893

### GIBBERELLINS

Moisture sensitivity, mechanical injury and gibberellin treatment of *Beta vulgaris* seeds. 6721

### GIEMSA

External symptoms Giemsa-stainable cell inclusions associated with virus infection in cacti. 6720

### GINGER

*Fusarium* yellows and rhizome rot of common ginger. 6945

### GLANDS (INSECTS)

Morphology of the alimentary canal and associated glands of the mature larva of *Achaea janata* L. (Lepidoptera, noctuidae). 6583

### GLASSER'S DISEASE

Polyserositis-arthritis complex in swine. 7182

### GLOBULINS

Blood serum protein from mink with Aleutian disease. 7185

### GLOMERELLA

Fungitoxicity of sterilized soil inoculated with soil microflora. 6799

Mycelial protein comparisons of isolates of cucurbit anthracnose fungi. 6808

Production of pectinolytic and cellulolytic enzymes by cucurbit anthracnose fungi. 6968

The effect of *N*-dodecylguanidine acetate on enzyme activity and the nucleotides of ribonucleic acid. 7749

### GLOSSINA

Prophylaxis against trypanosomiasis in Zebu cattle. III. Potentiation trials and a trial of R.D. 2902 in an area of medium trypanosome risk. 7630

### GLOSSINIA PALPALIS

Infectivity of *Trypanosoma rhodesiense* to tsetse flies fed through animal membranes. 6681

### GLUCOSE

Observations on the utilization of the hexose monophosphate pathway in nematode-infected roots of tomato. 7088

Respiratory activity and enzymes for glucose catabolism in fungus spores. 7704

### GLUME BLOTCH (WHEAT)

Epidemiology of glume blotch of wheat. 6888

### GOATS

Preliminary biological observations on *Linognathus africanus* Kellogg and Paine with a description of the first instar nymph (Haematopinidae, Anoplura). 6482

Rift valley fever in calves, goats and pigs. 7194

A condition in the goat resembling swayback in lambs. 7237

First report of Johne's disease in the Sudan. 7268

The effect of Tylosin against experimental and natural infection with *Mycoplasma* in goats. 7294

Infection of goats with *Eimeria* spp. of sheep origin. 7610

Acute toxic effects upon livestock and meat and milk residues of dieldrin. 7677

### GOITER

Congenital goitre in Dorset-Horn lambs. 7542

### GOLF COURSES

Formation of hydrogen cyanide by the mycelial stage of a fairy ring fungus. 6795

### GOMPHRENA

Approach graft transmission of Tulare apple mosaic virus between apple and *Gomphrena globosa*. 6753

### GONADOTROPINS

A study of the effects of various hormone treatments on the reproductive activity of prepuberal and post-puberal beef heifers and lactating beef cows. 7528

### GOTHION

Control of boll weevils resistant to chlorinated hydrocarbons. 7074

### GRAIN

Infection inhibition and germ-tube lysis of three cereal rusts by *Bacillus pumilus*. 6827

Effect of ronnel upon the adult rice weevil, *Sitophilus oryzae*. 7012

Factors affecting invasion of grains and seeds by *Aspergillus flavus* and effects of the fungus on germination of the seeds. 7644

Germination of cereal, sorghum, and small legume seeds after fumigation with hydrogen phosphide. 7645

Stored-grain insects and their control in New Jersey. 7647

A fumigant vaporizer unit for use in laboratory experiments. 7758

### GRANADILLA

Two unrelated viruses which cause woodiness disease of passion fruit (*Passiflora edulis*). 6937

### GRANULOCYTOPOIESIS

Granulocytopoiesis in germfree mice. 7251

### GRANULOMA

A non-tuberculous granuloma of the cat associated with an acid-fast bacillus. 7550

A non-tuberculous granuloma of the cat associated with an acid-fast bacillus. 7551



# SUBJECT INDEX

## GUINEA PIGS

### GRANULOSES

Polyhedrosis and granulosis viruses causing single and double infections in the spruce budworm, *Choristoneura fumiferana* Clemens. 6492

Mortality of the honey bee, *Apis mellifera*, in colonies treated with certain biological insecticides. 6508

Persistence of a granulosis virus of *Pieris brassicae* on cabbage leaves. 6517

Hypoproteinemia in a noctuid larva during the course of a granulosis. 6582

Descriptions and characteristics of a nuclear polyhedrosis virus and a granulosis virus of the armyworm, *Pseudaletia unipuncta* (Havorth) (Lepidoptera, Noctuidae). 6646

Synergism between two viruses of the armyworm, *Pseudaletia unipuncta* (Havorth) (Lepidoptera, Noctuidae). 6647

Breeding *Pieris brassicae* apparently free from granulosis virus. 6670

### GRAPEFRUIT

Effect of rootstock on the incidence of impietratura-diseased grapefruit fruits. 6846

Decline of grapefruit trees in relation to citrus nematode populations and tree recovery after chemical treatment. 7106

### GRAPES

Resistance to powdery mildew in grapevines related to osmotic value and associated factors. 6756

Control of the grape leaf folder in California. 7064

DDT deposits on grapes as affected by growth and weathering. 7682

Parathion and EPN residue studies on Concord grapes. 7683

Inhibition of enzymes by the anthocyanin malvidin-3-monoglucoside. 7730

### GRAPHOLITHA

Laboratory studies on the toxicity of various insecticides to different stages of the oriental fruit moth. 6988

### GRASS SICKNESS

Recovery from grass sickness. 7306

Recovery from subacute grass sickness. 7520

### GRASS TETANY

Three methods for controlling grass tetany in cattle and sheep. 7202

### GRASSES

Evidence of the overwintering of the greenbug in the Texas panhandle. 6516

Influence of temperature on rate of growth of five fungus pathogens of turfgrass and on rate of disease spread. 6745

The resistance of *Zea mays* to *Puccinia graminis*. 6794

Heterothallism in *Pyrenophora teres*. 6809

On *Helicotylenchus indicus* Siddiqi, 1963 (Nematoda, Hoplolaimidae), a phytoparasitic nematode in the Punjab. 7096

Paraquat for selective control of range weeds. 7125

The mode of action of diphenamid (N, N-dimethyl 2, 2-diphenylacetamide) in plants. 7126

### GRASSHOPPERS

Bacteria of grasshoppers of western Canada III. Frequency of occurrence, pathogenicity. 6499

Schizogregarine infection in grasshoppers. 6500

Bacteria of grasshoppers of western Canada I. The enterobacteriaceae. 6501

Bacteria of grasshoppers of western Canada II. The

Pseudomonadaceae, Achromobacteraceae, Micrococcaceae, Brevibacteriaceae, Lactobacillaceae, and less important families. 6503

The bacterium *Coccobacillus acridorum* d Herelle Its taxonomic position and status as a pathogen of locusts and grasshoppers. 6504

The isolation of a polyhedrosis virus from a grasshopper. 6547

### GREEN MOLD (CITRUS)

Biphenyl-resistant citrus green mold reported in Florida. 6914

### GREENHOUSE CULTURE

Inoculation and rust development on peanuts grown in the greenhouse. 6811

Potentilla species as hosts for *Phytophthora fragariae*. 6824

### GRISEOFULVIN

Parafilaria multipapillosa in the horse. 7320

Griseofulvin in the treatment of bovine ringworm. 7628

### GROWTH FACTORS

Influence of *Pratylenchus penetrans* alone and in combination with *Verticillium albo-atrum* on growth of peppermint. 6707

Influence of heat-labile components of the raspberry mosaic virus complex on growth and yield of red raspberries. 6724

Effect of biotin on growth and sporulation of *Verticillium albo-atrum*. 6777

Factors affecting growth, sporulation, pathogenicity, and dissemination of *Leptosphaerulina briosiana*. 6804

Effects of *Ustilago avenae* on growth of two oat varieties. 6832

Relation of decomposing plant residues to root growth of alfalfa. 6840

The effect of dapple apple and stem pitting on apple tree growth and yields in New Hampshire over a fourteen-year period. 6868

Effects of sodium fluoride on growth of some pathogenic fungi. 6943

Growth inhibition of *Phytophthora cinnamomi* by soil diffusates on agar medium. 6946

Influence of light on growth of *Aspergillus restrictus* in agar culture. 6957

Zinc bacitracin and chick growth. 7274

### GRUBS

Small amounts of insecticides effective in controlling grubs of the Japanese beetle. 7105

### GUAR

Three diseases of guar. 6918

### GUINEA PIGS

Exposure of white mice and guinea pigs to the nuclear-polyhedrosis virus of the cabbage looper, *Trichoplusia ni*. 6545

Response of rabbits and guinea pigs to vesicular stomatitis virus. 7217

Groundnut toxicity as the cause of exudative hepatitis (oedema disease) of guinea-pigs. 7455

Histopathology of guinea pigs with cholesterol-induced anemia. 7560

House fly pupation under baseboards. 7575

Control of *Myocoptes musculus* on guinea pigs. 7583

# SUBJECT INDEX

## HABEL TEST

### HABEL TEST

Potency tests of semple-type rabies vaccines of nervous tissue origin for use in animals. 7283

### HABITATS

The black flies (Diptera: Simuliidae) of western Massachusetts. 6457

Some effects of age, preimaginal habitat, and adult food on susceptibility of boll weevil to certain insecticides. 6983

### HAEMATOBIA

Preliminary report on the larval development of the horn fly, *Haematobia irritans*, in feces from cattle given fractions of a commercial preparation of *Bacillus thuringiensis*. 6532

### HAEMATOPINUS

Cattle lice eradication studies- A-3-year evaluation. 7230

### HAEMONCHOSIS

The anthelmintic efficiency of Haloxon against the adult and immature stages of the gastro-intestinal strongyles of Nigerian Zebu cattle. 7614

### HAEMONCHUS

Blood loss caused by *Haemonchus contortus* in sheep. 7216

### HAEMOPHILUS

*Haemophilus gallinarum* - Intraflock spread. 7559

### HAIRY ROOT (ROSA)

Hairy root (*Agrobacterium rhizogenes*) of field roses. 6829

### HAIRY VETCH

Mortality factors for the vetch bruchid, *Bruchus brachialis*. 7000

Evidence for a difference in toxicity between common and hairy vetch seeds for chicks. 7687

### HALICTINAE

Nests and social behavior of halictine bees of India (Hymenoptera, Halictidae). 6486

### HALO BLIGHT (BEANS)

Sources of resistance to halo blight in *Phaseolus vulgaris*. 6698

Chemical control of bacterial blights of dry field beans in Michigan by foliage sprays applied by ground and air equipment. 6881

### HALO BLIGHT (OATS)

Free amino acid and amide content of tobacco and oats infected by wildfire and halo blight bacteria. 6851

### HANTHOMONAS HEDERAE

Bacterial spot of ivy caused by *Xanthomonas hederae* (Arnaud, 1920, Dowson 1939, in New Zealand. 6740

### HAUSTORIUM

Electron microscopy of the sheath surrounding the haustorium of *Erysiphe graminis*. 7711

### HAWAII

Pathogenicity, vitamin nutrition, and cultural characteristics of isolates of *Phytophthora parasitica* from carnation and other hosts in Hawaii. 6768

An evaluation of atrazine, simazine, monuron and diuron on ten Hawaiian sugar cane plantations. 7132

### HAY

Residues in established alfalfa treated with granulated phorate (Thimet) and their effect on cattle fed the hay. 7667

### HEAD SMUT (CORN)

Suppression of corn head smut by in-furrow applications of pentachloronitrobenzene. 6747

### HEAT

Thermal inhibition of certain polyhedrosis virus diseases. 6649

Influence of heat-labile components of the raspberry mosaic

virus complex on growth and yield of red raspberries. 6724

An investigation of thermal inactivation of alfalfa mosaic virus. 6817

Hydrothermal and hygrothermal inactivation of *Monilinia fructicola* and *Rhizopus stolonifer* spores. 6912

Heat activation of different strains of tobacco mosaic virus infection on varieties of beans (*Phaseolus vulgaris*). 6970

Heat therapy of bean rust. 6974

Effect of heat treatment of sugarcane for control of ratoon stunting disease (RSD) on spread of mosaic. 6981

### HELICOPTERS

Chemical control of bacterial blights of dry field beans in Michigan by foliage sprays applied by ground and air equipment. 6881

### HELICOTYLENCHUS INDICUS

On *Helicotylenchus indicus* Siddiqi, 1963 (Nematoda, Hoplolaimidae), a phytoparasitic nematode in the Punjab. 7096

### HELICOTYLENCHUS THORNEI

*Helicotylenchus thornei* n. sp. (Nematoda, Hoplolaiminae) from a tomato plant field in Ludhiana, Punjab. 7091

### HELIOTHIS

On *Nosema heliothidis* Lutz and Splendor, a microsporidian parasite of *Heliothis zea* (Boddie) and *Heliothis virescens* (Fabricius) (Lepidoptera, Phalaenidae). 6568

### HELIOTHIS ZEA

The potential role of a feeding stimulant used in combination with the nuclear polyhedrosis virus of *Heliothis*. 6479

Silicon content of intact nuclear polyhydra from the corn earworm, *Heliothis zea*. 6525

Effects of age on mortality of *Heliothis zea* and *Heliothis virescens* larvae exposed to a nuclear polyhedrosis virus. 6555

A cytoplasmic polyhedrosis virus, *Smithiavirus pectinophorae* sp. n. of the pink bollworm, *pectinophora gossypiella* (Saunders). 6556

The effects of chemical insecticides and insecticidal adjuvants of a *Heliothis* nuclear polyhedrosis virus. 6557

Effects of temperature on mortality of *Heliothis zea* larvae exposed to sublethal doses of a nuclear polyhedrosis virus. 6558

The relation of pH to the activity of inclusion bodies of a *Heliothis* nuclear polyhedrosis. 6559

On *Nosema heliothidis* Lutz and Splendor, a microsporidian parasite of *Heliothis zea* (Boddie) and *Heliothis virescens* (Fabricius) (Lepidoptera, Phalaenidae). 6568

Laboratory technique and apparatus for testing viruses applied as dusts. 6596

A feeding stimulant to increase effectiveness of, and a field test with, a nuclear polyhedrosis virus of *Heliothis*. 6597

Thermal inhibition of certain polyhedrosis virus diseases. 6649

Artificial medium for rearing some lepidopterous corn insects. 7007

Field evaluation of Sevin as an insecticide for pests of vegetables in New Jersey. 7010

Observations on soybean insects in Maryland. 7051

Field tests with various insecticides for the control of *Lygus* bugs and the corn earworm on lima beans. 7066



# SUBJECT INDEX

## HERBICIDES

- HELMINTHIASIS**  
 Use of irradiated vaccines increasing. 7162  
 The use of Thiofuradene as a growth stimulant and anthelmintic in the production of pork in the Bahamas. 7302  
 The zoonosis of animal parasites in Iraq. IV. Some unusual lesions associated with *Opisthorchis tenuicollis* infection. 7593  
 The anthelmintic activity of a phenothiazine-phenzidole mixture compared with that of thiabendazole in lambs in Kenya. 7595  
 The role of selected management systems in the control of sheep parasites. 7642
- HELMINTHOSPORIUM**  
 Monogenic chlorotic lesion resistance to *Helminthosporium turcicum* in corn seedlings. 6767  
 Effects of geographic isolation and host association on the evolution of sexuality in *Helminthosporium*. 6835  
 Pungistatic effects of a soil bacterium on conidia and hyphae of *Helminthosporium sativum*. 6842  
 Antibiotic production by *Streptomyces* sp. in corn rhizosphere. 6864  
 Uptake of *Helminthosporium victoriae* toxin by oat tissue. 6889  
 Maduromycosis of the bovine nasal mucosa. 7479  
 Spore germinability in soil as an inherent character of *Cochliobolus sativus*. 7706
- HELMINTHOSPORIUM TERES**  
 Studies on the nature of barley resistance to *Helminthosporium teres*. 6780
- HELMINTHOSPORIUM TURCICUM**  
 The role of leaf microflora on epidemiology of the northern leaf blight of corn. 6697
- HEMAGGLUTINATION-INHIBITION TEST**  
 Hemagglutination test for diagnosis of hog cholera. 7196
- HEMIPTERA**  
 The higher classification of the family Rhopalidae (Hemiptera) together with a revision of the genus *Arhyssus* Stal (*Rhopalidae* Hemiptera). 6450  
 Flow relationships for hemipterous stylets. 6593
- HEMITHEA TRITONARIA**  
 Bionomics of *Hemithea tritonaria* Walker (Lepidoptera, Geometridae), a pest of *Moghania macrophylla* (Willd) O Ktze. 6591
- HEMOLYMPH NODES**  
 Histologic and electron microscopic studies of agranulocytes and hemal and hemolymph nodes in cattle. 7545
- HEMOLYSINS**  
 The effect of staphylococcal toxins on ruminant erythrocytes treated with diffusible substances formed by *Corynebacteria*. 7312
- HEMOLYTIC ANEMIA**  
 Histopathology of guinea pigs with cholesterol-induced anemia. 7560
- HEMOPHILUS**  
 Polyserositis-arthritis complex in swine. 7182
- HEMORRHAGE**  
 Subendocardial haemorrhage in rinderpest-infected cattle. 7495
- HEMORRHAGIC TRACHEITIS**  
 Fowlpox virus from chickens with hemorrhagic tracheitis. 7381
- HENDERSONULA**  
 Pathological anatomy of walnut branches infected by *Hendersonula toruloidea*. 6853
- HEPATITIS**  
 Hepatitis cysticerosa causing sudden death in a pig. 7405
- HEPTA-5-METHYLBENZIMIDAZOLE, 2-**  
 The effect of 2 hepta-5-methylbenzimidazole and hydrochloric acid on the growth of microflora found on poultry carcasses. 7652
- HEPTACHLOR**  
 Problems in the control of mint insects. 7009  
 Control of root maggots in swede turnips in Newfoundland with heptachlor and aldrin and the effect on parasites and overwintering pupae. 7039  
 Soil treatments in lieu of spraying for plum curculio control in peach orchards. 7063  
 Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California. 7065  
 Further studies on control of the clover root borer in Virginia. 7080  
 A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn. 7084  
 Small amounts of insecticides effective in controlling grubs of the Japanese beetle. 7105  
 Experiments on control of the sugar-beet wireworm in southern California bean fields. 7111  
 Insecticidal baits for control of the imported fire ant, *Solenopsis saevissima richteri*. 7571  
 Chlorinated hydrocarbon insecticides as soil treatments against the eye gnat *Hippelates collusor* (Townsend) in the laboratory. 7576  
 The excretion of dieldrin, DDT, and heptachlor epoxide in milk of dairy cows fed on pastures treated with dieldrin, DDT, and heptachlor. 7668  
 Heptachlor residues on corn stover in relation to dairy cattle feeding. 7670  
 The effect of soil treatments of chlordane or heptachlor on the flavor of turnips, parsnips, and carrots. 7671  
 Epoxidation of aldrin and heptachlor in soils as influenced by autoclaving, moisture, and soil types. 7673
- HEPTACHLOR EPOXIDE**  
 The excretion of dieldrin, DDT, and heptachlor epoxide in milk of dairy cows fed on pastures treated with dieldrin, DDT, and heptachlor. 7668  
 Heptachlor residues on corn stover in relation to dairy cattle feeding. 7670
- HERBICIDE RESIDUES**  
 Some factors that influence the deactivation of atrazine in soil. 7654  
 Dipyriddyium residues in an aquatic environment. 7662
- HERBICIDES**  
 Darkness and the activity of diquat and paraquat on tomato, broad bean and sugar beet. 7119  
 A study of factors influencing the effectiveness of diquat (101-ethylene-202-dipyridylium dibromide) for potato vine killing. 7127  
 Weed science - revolution in agricultural technology. 7131  
 The effect of oils on herbicidal activity of atrazine and linuron and of waxes and oils on the movement of EPTC in soil. 7657  
 Decomposition of 2,4-D and related phenoxyacetic acids by an *Arthrobacter* species. 7658  
 The mechanism of the interaction between soil organic matter and herbicide toxicity and the influence of pH on herbicide phytotoxicity. 7698  
 Physiological and metabolic changes induced by lethal con-

# SUBJECT INDEX

## HEREDITARY DISEASES

centrations of 2,4-D in the cocklebur (*Xanthium* spp.).

7705

## HEREDITARY DISEASES

Hereditary retinal atrophy in the poodle.

7238

## HEREDITY

Inheritance of stem rust resistance in two wheat varieties, Marquis and Kota.

6706

Inheritance of resistance in pepper to bacterial spot.

6725

Nature and inheritance of resistance to *Albugo candida* in radish.

6965

Heritable resistance to warfarin in rats.

7693

Tolerance to chlorinated nitrobenzenes in *Hyponomes solani* f. *cucurbitae* and its mode of inheritance.

7738

## HEREFORD CATTLE

Studies on the metabolism and residues of P32-labeled Delnav in a Hereford steer.

7676

## HERNIA

Rupture of the bladder in a calf.

7287

Unusual cerebellar conditions in pigs. Part 1. Cerebellar herniation associated with vitamin A deficiency.

7326

A case of traumatic uterine rupture in a heifer.

7399

## HERPES SIMPLEX

Aujeszky's disease in dogs.

7205

## HETERAKIS

Efficacy of micronized phenothiazine against *Heterakis gallinae* in chickens.

7629

## HETERODERA ROSTOCHIENSIS

The population genetics of the potato cyst-nematode, *Heterodera rostochiensis*, mathematical models to stimulate the effects of growing eelworm-resistant potatoes bred from *Solanum tuberosum* ssp. *andigena*.

7100

Observations on periodicity of hatching of eggs of the potato cyst-nematode, *Heterodera rostochiensis* Woll.

7110

## HETEROPTERA

Neurosecretory system of Heteroptera (Hemiptera) and a role of the aorta as a neurohaemal organ.

6520

Stored-grain insects and their control in New Jersey.

7647

## HEXACHLOROBENZENE

Time of year of infection of winter wheat by the dwarf bunt fungus.

6862

## HEXACHLOROPHENE

Disinfection of tomato seed infested with *Xanthomonas vesicatoria*.

6797

## HEXOSE PHOSPHATES

Observations on the utilization of the hexose monophosphate pathway in nematode-infected roots of tomato.

7088

## HIBERNATION

Evidence of the overwintering of the greenbug in the Texas panhandle.

6516

Field disease cycle of peppermint rust.

6773

Survival of *Xanthomonas vesicatoria* in soil and diseased tomato plants.

6854

Overwintering of stripe rust in winter wheat in Montana.

6904

Control of root maggots in swede turnips in Newfoundland with heptachlor and aldrin and the effect on parasites and overwintering pupae.

7039

A three-year overwintering study of the spotted alfalfa aphid.

7061

## HIPPODAMIA CONVERGENS

Biology and evaluation of certain predators of *Therioaphis maculata* (Buckton).

6628

## HISTOCHEMISTRY

Histochemical studies of larval *Macracanthorhynchus ingens* and certain spirobolid millipeds.

6495

## HISTOLOGY

Pathological histology of tumors induced in oleander by *Pseudomonas savastanoi*.

6967

The histological relationship of resistance to the citrus nematode in certain citrus rootstocks.

7114

Maduromycosis of the bovine nasal mucosa.

7479

Histologic and electron microscopic studies of agranulocytes and hemal and hemolymph nodes in cattle.

7545

Microscopic study of bovine endometrium.

7751

## HOG CHOLERA

Hog cholera is on the way out.

7145

Hog cholera Breaks influenced by bacterial infection.

7219

Conferences appraise hog cholera eradication efforts.

7319

The enteropathogenic effect of *Escherichia coli* in rabbits and pigs.

7324

Status of inactivated vaccines for hog cholera.

7352

Swine fever in two progeny testing stations.

7447

Breakdowns in swine-fever vaccinated herds.

7496

## HOG CHOLERA BREAKS

Hog cholera Breaks influenced by bacterial infection.

7219

## HOG CHOLERA VIRUS

Susceptibility to hog cholera may be related to breed.

7179

Hemagglutination test for diagnosis of hog cholera.

7196

Prenatal hog cholera infection a potential source of hog cholera.

7297

Cerebellar hypoplasia, hypomyelinogenesis, and congenital tremors of pigs, associated with prenatal hog cholera vaccination of sows.

7298

## HOLOCOCERA PULVEREA

Incidence of predators and feasibility of their control through hand picking in lac cultivation on bush types of hosts.

7050

## HONDURAS

Studies on ascospore production by *Mycosphaerella musicola* in Honduras.

6930

## HONEY

Surveys for nosema disease of honey bees in California.

7021

## HONEYCOMBS

Occurrence of mite *Varroa jacobsoni* Oudemans in brood cells of honey bee, *Apis indica* F.

6612

## HOPLOLAIMIDAE

On *Helicotylenchus indicus* Siddiqi, 1963 (Nematoda, Hoplolaimidae), a phytoparasitic nematode in the Punjab.

7096

## HOPLOLAIMINAE

*Helicotylenchus thornei* n. sp. (Nematoda, Hoplolaiminae) from a tomato plant field in Ludhiana, Punjab.

7091

## HOPLOLAIMUS INDICUS

On a nematode species of the genus *Hoplolaimus* Daday, 1905, from a citrus plant in the Punjab.

7094



## SUBJECT INDEX

## HYDROGEN PEROXIDE

- HOPS**  
Starvation tests with larvae of the cinnabar moth. 7043
- HORDEUM**  
Paraquat for selective control of range weeds. 7125
- HORMONES**  
Pregnancy hormones and brucellacidal activity in bovine serum. 7213  
Vitamin D3 and ovine ring womb. 7257  
Effect of melatonin on thyroid hormone secretion rate and feed consumption of female rats. 7444  
A study of the effects of various hormone treatments on the reproductive activity of prepuberal and post-puberal beef heifers and lactating beef cows. 7528
- HORSES**  
Epizootiology of equine viral rhinopneumonitis. 7286  
Recovery from grass sickness. 7306  
Nigropallidal encephalomalacia in the horse. 7307  
Parafilaria multipapillosa in the horse. 7320  
Current disease problems of horses. 7393  
To veterinary surgeons in equine practice Survey of uterine infections. 7430  
Cardiovascular disease in horses. 7431  
Uterine infections in mares--1964 survey. 7432  
Studies on equine respiratory virus. 7466  
Transmission of equine piroplasmosis by Dermacentor nitens Neumann. 7483  
Colitis X of horses. 7485  
Experimental Trypanosoma congolense infection in a horse. 7519  
Recovery from subacute grass sickness. 7520  
Treatment of Strongyles in horses. 7525  
Laparo-cystotomy in a gelding. 7554  
Parafilaria multipapillosa in the horse. 7626  
Toxicity of organic phosphorus insecticides to horses. 7694  
Toxicological aspects of 2,2-dichlorovinyl dimethyl phosphate (DDVP) in cows, horses, and white rats. 7699
- HOST INDEXING (PLANTS)**  
The resistance of Zea mays to Puccinia graminis. 6794  
Identification of the viruses affecting commercial varieties of pepper (Capsicum annum) in New Jersey. 6925  
A virus infecting maize in South Dakota. 6927
- HOST PLANTS**  
Effects of various diurnal temperature profiles on host-parasite reaction of wheat varieties and Puccinia striiformis. 6903
- HOST RANGE**  
Studies on the host range and pathogenicity of Erysiphe polygoni. 6924
- HOT WATER TREATMENT (PLANTS)**  
Hydrothermal and hygrothermal inactivation of Monilinia fructicola and Rhizopus stolonifer spores. 6912
- HUMAN DISEASES**  
Rabies in dogs and man sharply reduced. 7164  
A note on rabies and euthanasia in man. 7469  
Development of a synthetic medium for aseptic rearing of larvae of Stomoxys calcitrans (L.). 7567
- HUMAN ENGINEERING**  
Control of the tropical rat mite. 6678
- HUMAN NUTRITION**  
Salmonellosis in animals threatens man. 7467
- HUMANS**  
Insecticides in human fat in New Zealand. 7663  
The safe use of modern pesticides. 2. 7760
- HUMICOLA**  
Effect of the soil carbon nitrogen ratio on soil fungi. 6778
- HUMIDITY**  
Moisture sensitivity, mechanical injury and gibberellin treatment of Beta vulgaris seeds. 6721  
Hydrothermal and hygrothermal inactivation of Monilinia fructicola and Rhizopus stolonifer spores. 6912  
The effect of grain moisture upon development of the rice weevil in green corn. 7049  
Effect of temperature and humidity on the fecundity and development of Cadra cautella Wlk. in wheat. 7071  
A study of factors influencing the effectiveness of diquat (101-ethylene-202-dipyridylum dibromide) for potato vine killing. 7127  
Factors affecting invasion of grains and seeds by Aspergillus flavus and effects of the fungus on germination of the seeds. 7644  
Influence of grain moisture and storage temperature on the effectiveness of malathion as a grain protectant. 7649  
Epoxidation of aldrin and heptachlor in soils as influenced by autoclaving, moisture, and soil types. 7673  
Effects of relative humidity and temperature on the degradation of peanut sugar and oil by Aspergillus flavus. 7714
- HYALOMMA AEGYPTIUM**  
Mechanism of food transport in cattle-tick, Hyalomma aegyptium. 6562
- HYDRACRYLIC ACID BETA-LACTONE**  
The relative value of formalin and betapropiolactone as inactivating agents for Newcastle disease vaccine. 7231  
Duration of immunity trials with betapropiolactone-inactivated Newcastle disease virus vaccines. 7461
- HYDRAZINE**  
Toxicity of some hydrazine tranquillisers to dogs. 7446
- HYDROCARBONS**  
The effectiveness of chlorinated hydrocarbon insecticide mixtures for control of resistant and susceptible boll weevils. 6986  
Control of boll weevils resistant to chlorinated hydrocarbons. 7074
- HYDROCHLORIC ACID**  
The effect of 2 hepta-5-methylbenzimidazole and hydrochloric acid on the growth of microflora found on poultry carcasses. 7652
- HYDROCYANIC ACID**  
Formation of hydrogen cyanide by the mycelial stage of a fairy ring fungus. 6795  
Effect of methyl bromide and hydrocyanic acid fumigation on the germination of flax seeds. 7650
- HYDROGEN**  
Effect of soil exchangeable hydrogen and calcium ratio and the resulting pH on infection of citrus fibrous roots by Phytophthora parasitica. 7747
- HYDROGEN PEROXIDE**  
Inhibition of fungi by culture media previously exposed to light. 6954

# SUBJECT INDEX

## HYDROGEN-ION CONCENTRATION

### HYDROGEN-ION CONCENTRATION

The mechanism of the interaction between soil organic matter and herbicide toxicity and the influence of pH on herbicide phytotoxicity. 7698

The macerating enzyme of *Rhizoctonia solani*. 7701

Effect of soil exchangeable hydrogen and calcium ratio and the resulting pH on infection of citrus fibrous roots by *Phytophthora parasitica*. 7747

### HYDROLYSIS

The microbial hydrolysis of cellulose and some factors affecting the production of cellulase in a submerged culture of *Alternaria* sp. 7718

### HYDRONEPHROSIS

A case of retention pyonephrosis in a Corgi bitch. 7419

### HYDROPHILIDAE

Taxonomy and biology of the subfamily Berosinae of North and Central America and the West Indies (Coleoptera: Hydrophilidae). 6471

### HYLASTINUS

Further studies on control of the clover root borer in Virginia. 7080

### HYLENYA

An unidentified fungus parasitic on the seed-corn maggot. 6933

### HYMENOPTERA

The venom of the mud-dauber wasp *Sceliphron caementarium*. 6620

First records of hymenopterous parasites of yellow scale of cotton *Cerococcus hibisci* Green (Homoptera, Coccidae). 6629

Stored-grain insects and their control in New Jersey. 7647

### HYPERA

A nematode parasite of the alfalfa weevil (*Hypera postica* (Gyll.)). 6614

Effects of low temperature on the survival of the alfalfa weevil from Alberta and Utah. 7047

### HYPERKERATOSIS

Groundnut toxicity. 7264

Groundnut toxicity. 7323

Factors other than groundnut relating to turkey X disease. 7477

### HYPHAE

Fungistatic effects of a soil bacterium on conidia and hyphae of *Helminthosporium sativum*. 6842

### HYPOCOTYLS

Infection of seedling cotton hypocotyl by an isolate *Rhizoctonia solani*. 6781

### HYPODERMA

Systemic insecticides for cattle grub control. 7574

Feed lot tests with ronnel for control of cattle grubs. 7586

### HYPOMAGNESEMIA

A field trial of a heavy magnesium pellet. 7558

### HYPONYCES

The influence of various nitrogen compounds on sexual reproduction in *Hypomyces solani* f. *cucurbitae*. 6699

Pathogenicity of chlorinated-nitrobenzene-tolerant strains of *Hypomyces solani* f. *cucurbitae* race 2. 7713

Tolerance to chlorinated nitrobenzenes in *Hypomyces solani* f. *cucurbitae* and its mode of inheritance. 7738

### HYPOMYELINOGENESIS

Cerebellar hypoplasia, hypomyelinogenesis, and congenital tremors of pigs, associated with prenatal hog cholera vaccination of sows. 7298

### HYPOPLASIA

Cerebellar hypoplasia, hypomyelinogenesis, and congenital tremors of pigs, associated with prenatal hog cholera vaccination of sows. 7298

Unusual cerebellar conditions in pigs. Part II. Cerebellar Hypoplasia in pigs. 7325

### HYPOXANTHINE

Release of ribonucleic and amino acids by *Phytophthora*. 7745

### HYTAKEROL

Metastatic calcification induced by hytakerol in chickens infected with *Plasmodium gallinaceum*. 7427

### IERI VIRUS

Bushbush, Ieri and Lukuni viruses, three unrelated new agents isolated from Trinidadian forest mosquitoes. 6683

### ILEX

A fungus leafspot of english holly (*Ilex aquifolium*). 6714

Systemic insecticides for control of scales, leaf miners, and lace bugs. 7059

### IMMUNITY

Natural immunity of the bug *Triatoma infestans* to the protozoan *Trypanosoma rangeli*. 6666

Effect of revaccination on distemper antibody levels. 7368

Duration of immunity against Newcastle disease in chicks vaccinated with beta-propiolactone inactivated vaccine. 7390

Immunity to *Fasciola hepatica* infection in albino rats vaccinated with irradiated metacercariae. 7638

### IMMUNIZATION

The occurrence of polyphenoloxidase in the hemocytes of actively immunized larvae of the greater wax moth, *Galleria mellonella*. 6510

A method for inoculation of mosquito larvae. 6514

Inoculation and rust development on peanuts grown in the greenhouse. 6811

Theoretical relationships between inoculum potential and disease severity based on a study of the variation in virulence among isolates of *Verticillium albo-atrum*. 6892

Limitations of lungworm vaccine. 7153

Use of irradiated vaccines increasing. 7162

Anaplasmosis vaccine announced. 7168

Wisconsin eradicates brucellosis. 7176

First poliomyelitis epizootic in large primates under study. 7178

Cockers and labradors more resistant to distemper. 7197

African horse-sickness. 7200

The growth of rabies virus in tissue culture and its use as a living attenuated vaccine for domestic animals. 7224

A vaccine for anaplasmosis. 7258

Evaluation of bacterins for control of swine abscesses. 7276

Vaccination against Johnes disease. 7288

Vaccination of puppies. 7303

Studies on an experimental vaccine for prophylaxis of shipping fever. 7314

Conferences appraise hog cholera eradication efforts. 7319

The enteropathogenic effect of *Escherichia coli* in rabbits and pigs. 7324



# SUBJECT INDEX

## INSECT BIOLOGY

- Lactogenic immunity to transmissible gastroenteritis of swine. 7335
- Status of inactivated vaccines for hog cholera. 7352
- Studies on myxovirus parainfluenza-3 vaccine for prevention of shipping fever in cattle. 7395
- Anthrax vaccination. 7402
- The characterization of a causative agent of virus pig pneumonia. 7413
- Immunologic and epizootologic studies of epizootic bovine abortion. 7425
- Clinical appraisal of an avirulent oral erysipelas vaccine. 7492
- Breakdowns in swine-fever vaccinated herds. 7496
- Observations on pathogenicity and immunogenicity of a cell-culture-modified foot-and-mouth disease virus. 7498
- Immunization experiments with lungworm larvae. 7592
- IMPIETRATURA (CITRUS)**  
Effect of rootstock on the incidence of impietratura-diseased grapefruit fruits. 6846
- IMPIETRATURA (GRAPEFRUIT)**  
Effect of rootstock on the incidence of impietratura-diseased grapefruit fruits. 6846
- INACTIVATED VACCINES**  
Status of inactivated vaccines for hog cholera. 7352
- INCLUSION BODIES**  
Separation of bacterial spores and parasporal bodies with a fluorocarbon. 6480
- Purification of insect virus inclusion bodies with a fluorocarbon. 6490
- The susceptibility of the house fly, *Musca domestica* Linnaeus, to *Bacillus thuringiensis* var. *thuringiensis* Berliner. 6539
- On the problem of crystals with rickettsial infections. 6569
- External symptoms Giemsa-stainable cell inclusions associated with virus infection in cacti. 6720
- INDALONE**  
Use of an animal membrane in the evaluation of chemical repellents against the stable fly. 7568
- INDEXING**  
Rapid-index methods for exocortis of citrus. 6718
- INDIA**  
*Criconema laterale* Khan and Siddiqi, 1963 (Nematoda, Criconematidae), a parasite of citrus plant in the Punjab. 7093
- On *Longidorus brevicaudatus* (Schuurmans Stekhoven, 1951) Thorne, 1961, a nematode parasite of citrus plants in the Punjab. 7097
- A preliminary report on the occurrence of infectious laryngotracheitis of poultry in India. 7510
- INDIANA**  
Problems in the control of mint insects. 7009
- INDIGESTION**  
Gastric dyspepsia in calves. 7337
- Dyspepsia in calves. 7411
- INDOLEACETIC ACID**  
Inhibition of indoleacetic acid oxidase in tobacco plants infected by *Pseudomonas solanacearum*. 6900
- INDUSTRIAL WASTES**  
Oxygen balance in a stream receiving domestic and oil refinery effluents. 7655
- INFECTIOUS BOVINE RHINOTRACHEITIS VIRUS**  
The occurrence and distribution in the United Kingdom of antibodies to parainfluenza 3 and infectious bovine rhinotracheitis viruses in bovine sera. 7282
- INFECTIOUS BRONCHITIS**  
Infectious bronchitis virus types--Incidence in the United States. 7356
- Infectious bronchitis virus- tissue distribution. 7359
- INFECTIOUS BRONCHITIS VIRUS**  
A fluorescent antibody study of infectious bronchitis virus. 7434
- INFECTIOUS CANINE HEPATITIS**  
A clinician's view of canine virus diseases. 7386
- INFECTIOUS DISEASES**  
Infectivity stability of foot-and-mouth disease virus. 7173
- INFECTIOUS LARYNGOTRACHEITIS**  
A preliminary report on the occurrence of infectious laryngotracheitis of poultry in India. 7510
- INFECTIOUS LARYNGOTRACHEITIS VIRUS**  
A preliminary report on the occurrence of infectious laryngotracheitis of poultry in India. 7510
- INJURIES**  
Moisture sensitivity, mechanical injury and gibberellin treatment of *Beta vulgaris* seeds. 6721
- INOCULUM**  
Insects associated with wounds on trees that develop oak wilt. 6989
- INSECT ANATOMY**  
Studies on ovarian structure, function and growth in adult *Drosophila pseudo-obscura*. 6661
- INSECT BEHAVIOR**  
Nests and social behavior of halictine bees of India (Hymenoptera, Halictidae). 6486
- Laboratory method for screening compounds as attractants to gypsy moth males. 6494
- The effect of foraging behavior of moving honey bee colonies to crops before or after flowering has begun. 6529
- Behavioural responses to contact with DDT in *Anopheles atroparvus*. 6531
- The biological impact of the checkered beetles (Coleoptera: Cleridae) on populations of *Ips* bark beetles (Coleoptera: Scolytidae). 6565
- The house cricket, *Acheta domesticus*, and the house fly, *Musca domestica*, as a model predator-prey system. 6613
- Observations on the biology of *Psorophora cyanescens*. 6635
- INSECT BIOLOGY**  
Taxonomy and biology of the subfamily Berosinae of North and Central America and the West Indies (Coleoptera: Hydrophilidae). 6471
- Microbial isolations from the mid-gut of *Culex tarsalis* Coquillett. 6511
- The biological impact of the checkered beetles (Coleoptera: Cleridae) on populations of *Ips* bark beetles (Coleoptera: Scolytidae). 6565
- Bionomics of *Hemithea tritonaria* Walker (Lepidoptera, Geometridae), a pest of *Moghania macrophylla* (Willd.) O Ktze. 6591
- Influence of timing and insect biology on the effectiveness of insecticides applied for control of European pine shoot moth, *Rhyacionia buoliana*. 6991
- Bionomics and control of certain *Plusiinae* and studies of an associated nuclear polyhedrosis virus. 6992
- Biology of the oak timberworm, *Arrhenodes minutus*. 7085

# SUBJECT INDEX

## INSECT BREEDING

Control of *Dermatobia hominis* in Central America. 7594

## INSECT BREEDING

Artificial medium for rearing some lepidopterous corn insects. 7007

## INSECT CAGES

A cage for feeding insects through membranes. 6929

## INSECT COLLECTING EQUIPMENT

Locality and data labels for insects. 7752

## INSECT CONTROL

Inactivation by irradiation of spores of *Bacillus thuringiensis* var. *thuringiensis*. 6506

## INSECT DISEASES

The incidence of virus diseases in honey bees. 6448

The occurrence of species of the genus *Brevibacterium* in insects. 6463

North American species of *Aschersonia* parasitic on *Aleyrodidae*. 6464

*Nosema laphymae* n. sp. and the internal structure of the microsporidian spore. 6473

*Adelina sericethis* n. sp., a new coccidian parasite of scarabaeid larvae. 6474

An improved method for the isolation of *Streptococcus pluton*, and observations on its distribution and ecology. 6484

Bacteria of grasshoppers of western Canada III. Frequency of occurrence, pathogenicity. 6499

Schizogregarine infection in grasshoppers. 6500

Fungus disease of adult parasite insects caused by *Torula nigra* (Harpmann). 6502

The bacterium *Coccobacillus acridiorum* d Herelle Its taxonomic position and status as a pathogen of locusts and grasshoppers. 6504

A method for inoculation of mosquito larvae. 6514

Silicon content of the paraspora crystal of several crystalliferous bacteria. 6527

Pathogenicity of *Spicaria rileyi* to *Pseudoplusia includens*. 6536

The susceptibility of the house fly, *Musca domestica* Linnaeus, to *Bacillus thuringiensis* var. *thuringiensis* Berliner. 6539

The site of action of crystalliferous bacteria in Lepidoptera larvae. 6543

A crystalliferous bacterium associated with a blister disease in the earthworm *Eisenia foetida* (Savigny). 6546

Further studies on the isolation and crystallization of insect cytoplasmic viruses. 6548

A virus disease of the Indian rhinoceros beetle, *Oryctes rhinoceros* (Linnaeus), caused by a new type of insect virus, *Rhabdionvirus oryctes* gen. n., sp. n.. 6551

Transovarian transmission of some *Thelohania* (Nosematidae Microsporidia) in mosquitoes of California and Louisiana. 6564

On *Nosema heliothidis* Lutz and Splendor, a microsporidian parasite of *Heliothis zea* (Boddie) and *Heliothis virescens* (Fabricius) (Lepidoptera, Phalaenidae). 6568

On the problem of crystals with rickettsial infections. 6569

A microsporidian, *Thelohania* sp., in *Pieris rapae*. 6571

Variations in total hemocyte counts as induced by a nosemosis in the cabbage looper, *Trichoplusia ni*. 6572

Flagellated protozoa (*Trypanosomidae*) in the honey bee, *Apis mellifera*, in Australia. 6573

Preliminary laboratory results on the susceptibility of *Aedes aegypti* (Linnaeus) to *Bacillus thuringiensis* Berliner. 6575

*Nosema leptocoridis* sp. n., microsporidian parasite of *Leptocoris trivittatus* (Say) (Hemiptera). 6576

*Nosema hippodamiae* n. sp., a microsporidian parasite of *Hippodamia convergens* Guerin (Coleoptera, Coccinellidae). 6577

Miscellaneous observations on protozoan infections of *Nepa cinnerea* Linnaeus including descriptions of two previously unknown species of Microsporidia, *Nosema bialoviesianae* sp. n. and *Thelohania nepae* sp.n. 6578

The relation between oxygen consumption and bacterial infection in sawflies. 6580

*Beauveria densa*, pathogenic for the larvae of *Chilo zonellus*. 6584

Transmission of tumors in *Locusta migratoria* Linnaeus by nucleic acid extracted from the tumors. 6586

Bacteria and fungi associated with dead boll weevils (*Anthonomus grandis*) in a natural population. 6589

Laboratory technique and apparatus for testing viruses applied as dusts. 6596

Incorporation of radioactive Uridine into the RNA of the lepidopteran *Barathra brassicae*. 6599

Morphological identification of virus-like particles in the corn leaf aphid, *Rhopalosiphum maidis* (Fitch). 6607

The pathology of a nuclear polyhedrosis of *Rachiplusia ou*-(Guenee) (Lepidoptera) Noctuidae). 6608

Invertebrate pathology, cytology, and development. 6610

Occurrence of mite *Varroa jacobsoni* Oudemans in brood cells of honey bee, *Apis indica*F. 6612

Toxins from the entomogenous fungus *Metarrhizium anisopliae* I. Production in submerged and surface cultures, and in inorganic and organic nitrogen media. 6618

Toxins from the entomogenous fungi *Metarrhizium anisopliae*. II. Symptoms and detection in moribund hosts. 6619

Susceptibility of nine insect species to infection by *Bacillus thuringiensis* var. *thuringiensis*. 6626

A substance in some commercial preparations of *Bacillus thuringiensis* var. *thuringiensis* toxic to sawfly larvae. 6631

*Thelohania pristiphorae* sp. n., a microsporidian parasite of the larch sawfly, *Pristiphora erichsonii* (Hymenoptera Tenthredinidae). 6632

Possible virus disease in the European red mite. 6637

Epizootiology of a disease of the desert locust, *Schistocerca gregaria* (Forsk.) caused by nonchromogenic strains of *Serratia marcescens* Bizio. 6644

On the pathogenesis of simultaneous virus infections in insects. 6650

Oxygen concentration in larval hemolymph of the Japanese beetle, *Popillia japonica*, infected with *Bacillus popilliae*. 6659

A newly described virus of the winter moth, *Operophtera brumata* Hübner (Lepidoptera, Geometridae). 6660

Natural immunity of the bug *Triatoma infestans* to the protozoan *Trypanosoma rangeli*. 6666

Polyhedroses in neuropterous insects. 6684

## INSECT ECOLOGY

An improved method for the isolation of *Streptococcus pluton*, and observations on its distribution and ecology. 6484



# SUBJECT INDEX

## INSECT TAXONOMY

### INSECT EGGS

A viruslike transovarian factor affecting morphology in spider mites. 6449

An artificial ovipositional site for some Heteroptera that insert their eggs into plant tissue. 6627

### INSECT FLIGHT

The flight range of the European chafer. 6453

The horizontal and vertical distribution of flying insects near artificial windbreaks. 6462

### INSECT GENETICS

Selection response and genetics of parathion resistance in the Pacific spider mite, *Tetranychus pacificus*. 6667

Effects of X-rays, tryptophan metabolites, and eye color mutants on the tumor-suppressor system in *Drosophila melanogaster*. 6668

Correlation between sperm redundancy and chiasma frequency. 6669

Genetic variation in a two-spotted spider mite, *Tetranychus urticae*, population plateaued by directed selection (*Acarina*, *Tetranychidae*). 6673

Exchange and secondary nondisjunction in females of *Drosophila melanogaster* homozygous for X chromosome inversions. 6674

Colonization and production of a dieldrin-resistant strain of *Anopheles quadrimaculatus* say. 6677

### INSECT HISTOLOGY

Histological observations on the development of crystalline inclusions of the rickettsial disease of *Tipula paludosa* Meigen. 6550

### INSECT MIGRATION

Long-range aerial transport of the harlequin bug and the greenbug into Minnesota. 6456

### INSECT MORPHOLOGY

A viruslike transovarian factor affecting morphology in spider mites. 6449

Mechanism of locust jumping. 6498

The influence of environmental and nutritional factors on growth and caste determination of female honey bees. 6519

Morphological and physiological distinction between two populations of the peach-potato aphid. 6523

A detailed morphological study of the external and internal genital organs of female *Melanagromyza obtusa* (Malloch), a serious pest of *Cajanus indicus* L. (*Agromyzidae*, *Diptera*). 6560

Morphology of the alimentary canal and associated glands of the mature larva of *Achaea janata* L. (*Lepidoptera*, *Noctuidae*). 6583

Invertebrate pathology, cytology, and development. 6610

### INSECT MUTATION

Effects of X-rays, tryptophan metabolites, and eye color mutants on the tumor-suppressor system in *Drosophila melanogaster*. 6668

A preliminary report on mutations in the house fly. 6676

### INSECT NUTRITION

Studies on the nutritional requirements of the fruit fly *Dacus cucurbitae* Coquillett (*Diptera*, *Trypetidae*). iv. responses of *D. cucurbitae* larvae to vitamin deficient diets. 6512

Studies on the nutritional requirements of the fruit fly *Dacus cucurbitae* Coquillett (*Diptera*, *Trypetidae*). iii. Development of a synthetic medium for *D. cucurbitae* larvae. 6513

The influence of environmental and nutritional factors on growth and caste determination of female honey bees. 6519

Effects of soil insecticides on apple trees and resulting effect on mite nutrition. 7053

Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition. 7054

### INSECT PESTS

Preliminary biological observations on *Linognathus africanus* Kellog and Paine with a description of the first instar nymph (*Haematopinidae*, *Anoplura*). 6482

Bionomics of *Bemitea tritonaria* Walker (*Lepidoptera*, *Geometridae*), a pest of *Moghania macrophylla* (Willd) O Ktze. 6591

Occurrence of *Eublemma silicula* Swinhoe as pest of bajra in Delhi. 7023

Water tensions in plants, an entomological approach. 7037

### INSECT PHYSIOLOGY

Studies on the nutritional requirements of the fruit fly *Dacus cucurbitae* Coquillett (*Diptera*, *Trypetidae*). iii. Development of a synthetic medium for *D. cucurbitae* larvae. 6513

The influence of environmental and nutritional factors on growth and caste determination of female honey bees. 6519

Neurosecretory system of Heteroptera (*Hemiptera*) and a role of the aorta as a neurohaemal organ. 6520

Mouthparts of the biting and blood-sucking type in *Tanyderidae* and *Chironomidae* (*Diptera*). 6521

Morphological and physiological distinction between two populations of the peach-potato aphid. 6523

Postembryonic development of the brain in *Bombyx mori*. 6624

The normal bacterial flora of the alimentary canal of laboratory stocks of the desert locust, *Schistocerca gregaria* Forskal. 6643

Studies of water conservation in cockroaches. 6653

Studies on ovarian structure, function and growth in adult *Drosophila pseudo-obscura*. 6661

### INSECT POPULATION

The responsibilities of veterinary practitioners as to the use of pesticides. 7229

### INSECT REARING

Laboratory studies on the rearing of *Aphidius swathi* (*Hymenoptera*, *Braconidae*) and its parasitism of *Acythosiphon pisum* (*Homoptera*, *Aphididae*). 6528

A laboratory rearing method for *Lygus hesperus* knight. 6984

Bionomics and control of certain *Plusiinae* and studies of an associated nuclear polyhedrosis virus. 6992

### INSECT REPELLENTS

The biological evaluation of spray additives and solvents with *Blattella germanica* (Linn) and *Periplaneta americana* (Linn.). 6639

Use of an animal membrane in the evaluation of chemical repellents against the stable fly. 7568

Methods for the evaluation of stable fly toxicants and repellents. 7579

### INSECT SUBVIVAL

Effect of culm solidness on the survival of the wheat stem sawfly. 7041

### INSECT TAXONOMY

The *Culicoides* of New Mexico (*Diptera*, *Ceratopogonidae*). 6446

The higher classification of the family *Rhopalidae* (*Hemiptera*) together with a revision of the genus *Arhyssus* Stal (*Rhopalidae* *Hemiptera*). 6450

A taxonomic study of the genus *Cedusa* in the New World (*Homoptera* *Derbidae*). 6454

The black flies (*Diptera* *Simuliidae*) of western Massa-

# SUBJECT INDEX

## INSECT TEMPERATURE

- chusetts. 6457
- Drosophilid survey of India. iII. the Drosophilida of Kashmir Valley. 6466
- The aquatic and semi-aquatic Hemiptera of Oklahoma. the Lygaeidae of Oklahoma (Hemiptera). 6468
- A preliminary study of the Syrphidae of Oklahoma (Diptera) Syrphidae. 6469
- Taxonomy and biology of the subfamily Berosinae of North and Central America and the West Indies (Coleoptera) Hydrophilidae. 6471

## INSECT TEMPERATURE

- Effects of temperature on mortality of *Heliothis zea* larvae exposed to sublethal doses of a nuclear polyhedrosis virus. 6558

## INSECT VECTORS

- Recovery of aster yellows from excised organs of insect vectors. 6770
- Instability of symptoms of potato leaf roll virus. 6800
- Reappraisal of transmission of tobacco mosaic virus by insects. 6845
- Effect of age of vector and of abdomen punctures on virus transmission. 6910
- A cage for feeding insects through membranes. 6929
- Insects associated with wounds on trees that develop oak wilt. 6989
- Suspected cases of western encephalitis on increase. 7174
- Ticks in the united states serve as vectors of disease. 7187
- African horse-sickness. 7200
- Red squirrel disease. 7293
- Tick-borne disease control. 7309
- Anaplasmosis control preventing the introduction and spread in Anaplasmosis-free areas. 7387
- Problems of anaplasmosis control in tick-infested areas of the Northwest. 7474
- Problems of establishing anaplasmosis-free herds in Montana. 7491
- A successful anaplasmosis eradication program. 7552

## INSECTICIDE ADDITIVES

- The biological evaluation of spray additives and solvents with *Blattella germanica* (Linn) and *Periplaneta americana* (Linn.). 6639

## INSECTICIDE RESIDUES

- Insecticides in human fat in New Zealand. 7663
- Dissipation of malathion residues on tomato and pea. 7679
- Analysis of egg yolk and poultry tissues for chlorinated insecticide residues. 7681
- Organochlorine pesticides in Antarctica. 7684

## INSECTICIDE RESISTANT INSECTS

- Morphological and physiological distinction between two populations of the peach-potato aphid. 6523
- Laboratory selection of normal and chlordane-resistant German cockroaches for resistance to Malathion and Diazinon. 6535
- Relationship between metabolism and differential toxicity in insects and mice of Diazinon, dimethoate, parathion, and acethion. 6570
- The influence of selection pressure on the development of resistance in populations of *Tetranychus telarius* (L.). 6656

- Colonization and production of a dieldrin-resistant strain of *Anopheles quadrimaculatus* say. 6677

- Methylenedioxyphenyl derivatives as synergists for carbamate insecticides on susceptible, DDT-, and parathion-resistant house-flies. 6679

- Some effects of age, preimaginal habitat, and adult food on susceptibility of boll weevil to certain insecticides. 6983

- Spotted alfalfa aphid resistance in mature growth of alfalfa varieties. 7019

- Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California. 7065

- Resistance of *Boophilus microplus* to organo-phosphorus insecticides. 7503

- Field studies of house fly resistance to organophosphorus insecticides. 7569

## INSECTICIDES

- Mortality of the honey bee, *Apis mellifera*, in colonies treated with certain biological insecticides. 6508

- Experiments on prolongation of the life of mosquito larvae by underfeeding. 6581

- The effect of insecticides on transamination in the american cockroach. 6587

- Laboratory technique and apparatus for testing viruses applied as dusts. 6596

- Control of the tropical rat mite. 6678

- Insecticidal control of the Hessian fly. 6987

- Laboratory studies on the toxicity of various insecticides to different stages of the oriental fruit moth. 6988

- Influence of timing and insect biology on the effectiveness of insecticides applied for control of European pine shoot moth, *Rhyacionia buoliana*. 6991

- Evaluation of commonly used insecticides for the control of peach curl aphid, *Anuraphis helichrysi* Kalt. 6996

- Evaluation of insecticides for control of the Fuller rose beetle on citrus in California. 7004

- O-ethyl S-2(ethylthio)-ethyl alkylphosphonothioates as systemic insecticides. 7035

- Effects of soil insecticides on apple trees and resulting effect on mite nutrition. 7053

- Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition. 7054

- A systemic insecticide and bait for flea and rat control. 7561

- Relationships between structure and insecticidal activity of some organotin compounds. 7688

- The search for veterinary insecticides. II. carbamates active against sheep blowfly. 7691

- Metabolism of methylcarbamate insecticide chemicals in plants. 7717

- Apparatus for insecticide assay. 7753

## INSECTS

- The designation of chemicals in terms of the responses they elicit from insects. 6518

- Note on the biology of *Acraea bonasia* Fabricius from eastern Nigeria (Lepidoptera, Nymphalidae). 6561

- Relationship between metabolism and differential toxicity in insects and mice of Diazinon, dimethoate, parathion, and acethion. 6570

- Establishment of an insect cell strain persistently infected with an insect virus. 6592



# SUBJECT INDEX

		KEPONE
Susceptibility of nine insect species to infection by <i>Bacillus thuringiensis</i> var. <i>thuringiensis</i> .	6626	
Action of DDT at an insect synapse.	6633	
The effect of phorate applied to seed on the growth, development and insects attacking grain sorghum.	7005	
The fate of phorate in soils.	7008	
O-ethyl S-2(ethylthio)-ethyl alkylphosphonothioates as systemic insecticides.	7035	
Forest-insect surveys in the central Rocky Mountains.	7077	
<b>INTERFERON</b>		
Effects of cortisol and adrenalectomy on induction of interferon by endotoxin.	7468	
<b>INTESTINAL HERNIA</b>		
Intestinal herniation in the ewe.	7548	
<b>INTESTINES</b>		
Isolation of enteroviruses from intestinal tract of swine.	7155	
Vitamin D-induced calcium binding factor in rat intestinal mucosa.	7388	
<b>INTRADERMAL ANTHRAX VACCINE</b>		
Anthrax vaccination.	7402	
<b>IODOPHENYL-3-NITROPHENYL-5-PHENYLTETRAZOLIUM CHLORIDE, 2-P-, Succinoxidase activity in two species of Bracon (Hymenoptera, Braconidae).</b>	6595	
<b>IOWA</b>		
Skunks and cows are rabies threat in Iowa.	7172	
<b>IPS AVULSUS</b>		
The biological impact of the checkered beetles (Coleoptera0 Cleridae) on populations of Ips bark beetles (Coleoptera0 Scolytidae).	6565	
<b>IPS GRANDICOLLIS</b>		
The biological impact of the checkered beetles (Coleoptera0 Cleridae) on populations of Ips bark beetles (Coleoptera0 Scolytidae).	6565	
<b>IRBISIA</b>		
The fungus <i>Entomophthora erupta</i> (Dustan) attacking the black grass bug, <i>Irbisia solani</i> (Heidemann) (Hemiptera, Miridae), in California.	6538	
<b>IRIS</b>		
Relation of the iris borer to bacterial soft rot of iris.	6774	
<b>IRON SULFATES</b>		
Iron deficiency anemia as a cause of stillbirths in swine.	7437	
<b>IRRADIATION</b>		
Inactivation by irradiation of spores of <i>Bacillus thuringiensis</i> var. <i>thuringiensis</i> .	6506	
Use of irradiated vaccines increasing.	7162	
<b>ISOBUTYLAMINE</b>		
Control of <i>Penicillium</i> decay of oranges with certain volatile aliphatic amines.	6741	
<b>ISODEIN</b>		
Soil treatments in lieu of spraying for plum curculio control in peach orchards.	7063	
A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn.	7084	
<b>ISOPROPYLAMINE</b>		
Control of <i>Penicillium</i> decay of oranges with certain volatile aliphatic amines.	6741	
<b>ISOTEX</b>		
Control of pear borer and American plum borer in apple trees.	7024	
<b>ISRAEL</b>		
Salmonellosis in slaughterhouses in Israel.	7375	
<b>IXODIDES</b>		
Ticks in the united states serve as vectors of disease.	7187	
Anaplasmosis control preventing the introduction and spread in Anaplasmosis-free areas.	7387	
Problems of anaplasmosis control in tick-infested areas of the Northwest.	7474	
Further attempts to infect animals with <i>Theileria parva</i> .	7598	
Bovine streptothricosis Production of lesions by the bites of the tick <i>Amblyomma variegatum</i> .	7620	
Tick transmission of bovine pasteurellosis.	7621	
Studies on the distribution of the sheep tick ( <i>Ixodes ricinus</i> L.) and the occurrence of enzootic staphylococcal infection of lambs in North-West Yorkshire and North-East Lancashire.	7641	
<b>JAPANESE B ENCEPHALITIS</b>		
Complement-fixation test for detecting Japanese encephalitis virus.	7198	
<b>JAUNDICE</b>		
Cholelithiasis causing obstructive jaundice in a Boxer dog.	7248	
<b>JOHNE S DISEASE</b>		
The use and value of laboratory and skin tests in the diagnosis of Johnes disease.	7148	
First report of Johnes disease in the Sudan.	7268	
Vaccination against Johnes disease.	7288	
<b>JOHNIN TEST</b>		
The use and value of laboratory and skin tests in the diagnosis of Johnes disease.	7148	
Significance of johnin test on naturally infected cattle.	7192	
<b>JUGLANS</b>		
Pathological anatomy of walnut branches infected by <i>Hendersonula toruloidea</i> .	6853	
<b>JUTE</b>		
Note on the biology of <i>Acraea bonasia</i> Fabricius from eastern Nigeria (Lepidoptera, Nymphalidae).	6561	
Fertilizer and soil-fumigation effects on <i>Pythium splendens</i> in south Florida.	6934	
<b>KALANCHOE</b>		
Stemphylium leafspot of <i>Echeveria</i> , <i>Kalanchoe</i> , and <i>Sedum</i> .	6916	
<b>KALE</b>		
Haemoglobinaemia of cattle associated with the feeding of Brassicae species.	7272	
Observations on the blood picture of cattle, sheep and rabbits fed on kale.	7458	
Nicotine residues in field-treated cauliflower, celery, green beans, kale, mustard greens and spinach.	7661	
<b>KANSAS</b>		
A three-year overwintering study of the spotted alfalfa aphid.	7061	
<b>KENAF</b>		
Fertilizer and soil-fumigation effects on <i>Pythium splendens</i> in south Florida.	6934	
<b>KEPONE</b>		
The bean leaf skeletonizer, <i>Autoplusia egea</i> , and its control on bush snap beans in the everglades.	7006	
Control of the grape leaf folder in California.	7064	
Insecticidal baits for control of the imported fire ant, <i>Solenopsis saevissima richteri</i> .	7571	

# SUBJECT INDEX

## KETOSIS

### KETOSIS

- Cysteamine therapy of primary bovine ketosis. 7233
- An evaluation of some rapid tests on milk for the early detection of bovine ketosis. 7417
- The therapeutic use of cysteamine in bovine ketosis. 7507

### KIDNEY BEANS

- Some effects of supplying benzylademine to leaves and plants inoculated with viruses. 6695
- Berbicidal activity of vapors of 4-amino-3,5,6-trichloropicolinic acid. 7123

### KINETIN

- Effects of some cytokinins on tobacco and their relation to tobacco mosaic virus infection. 6915

### KININS

- Effects of some cytokinins on tobacco and their relation to tobacco mosaic virus infection. 6915

### KNEMIDOKOPTES

- Infestation of a parakeet with Knemidokoptes pilae. 7616

### LABIDURA RIPARIA

- Bistology of the brain of Labidura riparia (Pallas) Dermaptera). 6630

### LABORATORY ANIMALS

- Further attempts to infect animals with Theileria parva. 7598

### LABRADOR RETRIEVER DOGS

- Cockers and labradors more resistant to distemper. 7197

### LAC

- Incidence of predators and feasibility of their control through hand picking in lac cultivation on bush types of hosts. 7050

### LACTOBACILLACEAE

- Bacteria of grasshoppers of western Canada Ii. The Pseudomonadaceae, Achromobacteraceae, Micrococcaceae, Brevibacteriaceae, Lactobacillaceae, and less important families. 6503

### LADINO CLOVER

- Vectors of alfalfa and bean yellow mosaic viruses in Ladino white clover. 6803

### LAMB S QUARTERS

- ISU veterinarians suspect two weeds as cause of seasonal swine disease. 7157

### LAMBS

- Ineffectivity of furazolidine in ovine vibriosis. 7167
- Rift valley fever in lambs and sheep. 7206
- Bypomyelinogenesis congenita in lambs. 7240
- Effect of pasteurized bacterin on mortality and pneumonia in lambs. 7339
- Osteogenesis imperfecta in lambs. 7362
- White muscle disease, a selenium-responsive myopathy. 7443
- Chronic copper poisoning in lambs. 7487
- Staphylococcal infection in lambs a study of live and dead lambs from tick-infested farms in North-West Yorkshire and North-East Lancashire. 7543
- The anthelmintic activity of a phenothiazine-phenidole mixture compared with that of thiabendazole in lambs in Kenya. 7595
- Field trials comparing the anthelmintic effect of Ruelene (4-tert-butyl-2-chlorophenylmethyl methylphosphoramidate) with that of phenothiazine. 7601
- Injectable Carbontetrachloride in the treatment of Fasciola hepatica infestation in lambs. 7608
- The action of pure microbial phenothiazine on the infestations of Nematodirus battus in lambs. 7612

- Acute toxic effects upon livestock and meat and milk residues of dieldrin. 7677

### LAMENESS

- Fluorosis causes lameness. 7260

### LAMINARIN

- Addition of fungal cell-wall components to soil for biological disease control. 6822

### LAPBYGMA

- Nosema laphymae n. sp. and the internal structure of the microsporidian spore. 6473

### LARVAE

- Laboratory evaluation of several insecticides against Chrysops larvae. 6549
- Experiments on prolongation of the life of mosquito larvae by underfeeding. 6581
- A nematode parasite of the alfalfa weevil (Hypera postica (Gyll.)). 6614
- Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae. 6657
- Toxicological action of DDT on three species of mosquito larvae. 6658
- Mortality factors for the vetch bruchid, Bruchus brachialis. 7000
- Effect of culm solidness on the survival of the wheat stem sawfly. 7041
- Starvation tests with larvae of the cinnabar moth. 7043
- Stalk shredding and plowing as methods for controlling the pink bollworm, Pectinophora gossypiella. 7083
- The histological relationship of resistance to the citrus nematode in certain citrus rootstocks. 7114
- Development of a synthetic medium for aseptic rearing of larvae of Stomoxys calcitrans (L.). 7567
- Survival of encysted eggs and larvae of the soybean cyst nematode, Beterodera glycines, ingested by swine. 7632

### LASIODERMA

- The suitability of tobaccos for the growth of the cigarette beetle, Lasioderma serricorne. 7081

### LATE BLIGHT (POTATOES)

- Histochemical studies on the dehydrogenases of potato affected by late blight. 6949

### LATRODECTUS

- Effect of Latrodectus mactans tredecimguttatus venom on the crayfish stretch receptor neurone. 7692

### LAWNS

- Formation of hydrogen cyanide by the mycelial stage of a fairy ring fungus. 6795

### LEAD

- The incidence of lead poisoning in calves in Northern Ireland. 7529

### LEAD ARSENATE

- Control of the grape leaf folder in California. 7064

### LEAF CURL (TOBACCO)

- Inter-relationship between whitefly (Bemisia tabaci Gien) population and the incidence of leaf curl in bidi tobacco (nicotiana tabacum L) in relation to different planting dates. 7044

### LEAF ROLL (POTATOES)

- Instability of symptoms of potato leaf roll virus. 6800

### LEAF RUST (PEANUTS)

- Some observations of peanut leaf rust and Cercospora leaf spots in Texas. 6762



# SUBJECT INDEX

LEAF SPOT (ALFALFA)  
A physiogenic leaf and stem spot of some forage legumes. 6790

Factors affecting growth, sporulation, pathogenicity, and dissemination of *Leptosphaerulina briosiana*. 6804

LEAF SPOT (BIRDS FOOT TREFOIL)  
Host-parasite relations of *Stemphylium* leafspot and stem canker of birdsfoot trefoil (*Lotus corniculatus*). 6737

LEAF SPOT (BIRDSFOOT TREFOIL)  
A physiogenic leaf and stem spot of some forage legumes. 6790

LEAF SPOT (ILEX AQUIFOLIUM)  
A fungus leafspot of english holly (*Ilex aquifolium*). 6714

LEAF SPOT (PEANUTS)  
Some observations of peanut leaf rust and *Cercospora* leaf spots in Texas. 6762

LEAF SPOT (RED CLOVER)  
A physiogenic leaf and stem spot of some forage legumes. 6790

LEAF SPOT (RHUS TRILOBATA)  
Control of *Cylindrosporium* leaf spot disease of *Rhus trilobata* and *Shepherdia argentea* seedlings. 6855

LEAF SPOT (SAFFLOWERS)  
*Stemphylium* leafspot of safflower. 6870

LEAF SPOT (SHEPHERDIA ARGENTEA)  
Control of *Cylindrosporium* leaf spot disease of *Rhus trilobata* and *Shepherdia argentea* seedlings. 6855

LEAF SPOT (VETCH)  
A physiogenic leaf and stem spot of some forage legumes. 6790

LEAFSPOT (ECHEVERIA)  
*Stemphylium* leafspot of *Echeveria*, *Kalanchoe*, and *Sedum*. 6916

LEAFSPOT (KALANCHOE)  
*Stemphylium* leafspot of *Echeveria*, *Kalanchoe*, and *Sedum*. 6916

LEAFSPOT (SEDUM)  
*Stemphylium* leafspot of *Echeveria*, *Kalanchoe*, and *Sedum*. 6916

LEAVES  
Some effects of supplying benzyladenine to leaves and plants inoculated with viruses. 6695

The role of leaf microflora on epidemiology of the northern leaf blight of corn. 6697

A simple method of measuring rate of plant virus movement from inoculated tobacco leaves to stem tips. 6750

Metabolism of resistant and susceptible cucumber varieties infected with cucumber mosaic virus. 6813

Response of plants to air pollutants. II. Effects of ozone concentration and leaf maturity on injury to *Nicotiana tabacum*. 6815

Ozone injury to the foliage of *Pinus ponderosa*. 6819

Red leaf disorders of pear in California and their relation to pear decline. 6836

Effects of ultraviolet preinoculation treatment of leaves on subsequent infection by tobacco mosaic virus and TMV. ribonucleic acid. 6899

Changes in multiple molecular enzymes in rusted bean leaves. 6923

Relation of *Cercospora* infection to oil application on the dorsal or ventral side of tung leaves. 6948

Progressive distribution of southern bean mosaic virus antigen in bean leaves determined with a fluorescent antibody stain. 6969

## LEUKOCYTES

The bean leaf skeletonizer, *Autoplusia egea*, and its control on bush snap beans in the everglades. 7006

Chloroplast number in leaves of normal wheat plants and those infested with hessian fly or treated with maleic hydrazide. 7052

Interaction of growth regulators in the senescence of nasturtium leaf disks. 7702

Comparative anatomical study of leaves of young and mature banana plants in relation to the morphology of *Cercospora musae* lesions. 7720

LEGISLATION  
Toxic chemicals. 7245

The safe use of toxic chemicals. 7660

LEGUMES  
Toxicity of cellulose acetate sheeting to leguminous plants. 7026

An analysis of the bloat complex and progress towards its prevention. 7236

Germination of cereal, sorghum, and small legume seeds after fumigation with hydrogen phosphide. 7645

LEMA  
Laboratory studies of three-lined potato beetle and control with various insecticides. 7025

LEMONS  
Mechanical transmission of a latent lemon virus. 6976

Citrus red mites resistant to demeton and overex and their response to Tedion and Kelthane. 7040

LEPIDOPTERA  
*Membracidae* attracted to black light. 6590

Artificial medium for rearing some lepidopterous corn insects. 7007

Effects of nectariless cottons on populations of three lepidopterous insects. 7029

Stored-grain insects and their control in New Jersey. 7647

LEPTOSPHERULINA  
Factors affecting growth, sporulation, pathogenicity, and dissemination of *Leptosphaerulina briosiana*. 6804

Infection of alfalfa by *Leptosphaerulina briosiana*. 6935

LEPTOSPIRA  
Leptospirae isolated from Nutria. 7133

Role of deer in epizootiology of leptospirosis. 7212

LEPTOSPIROSIS  
Role of deer in epizootiology of leptospirosis. 7212

Abortion and infertility in sows in Ireland apparently due to infection by *Leptospira canicola*. 7422

Abortion in the sow due to infection by *Leptospira canicola* - A preliminary report. 7428

Peritoneal dialysis as an adjunct to Leptospirosis therapy in a dog. 7473

LETTUCE  
An apparent strain of tobacco rattle virus associated with a yellow spotting of lettuce. 6757

LEUCODERMIA  
Leucoderma-like disease in the culture of giant African snail *Achatina fulica* Bowdich. 7134

LEUKEMIA  
Bovine leukemia. 7289

LEUKOCYTES  
Low leukocyte levels protect cows from coliform mastitis. 7494

# SUBJECT INDEX

## LEUKOPENIA

### LEUKOPENIA

Response of cows and calves to a Psittacosis-Lympho-granuloma group agents. 7186

### LEUKOSIS

Canine leukosis in Sweden. 7234

### LIFE CYCLE

Some effects of age, preimaginal habitat, and adult food on susceptibility of boll weevil to certain insecticides. 6983

### LIGHT

Inhibition of fungi by culture media previously exposed to light. 6954

Influence of light on growth of *Aspergillus restrictus* in agar culture. 6957

A study of factors influencing the effectiveness of diquat (101-ethylene-202-dipyridylum dibromide) for potato vine killing. 7127

### LIGHT TRAPS

Membracidae attracted to black light. 6590

### LIGNIN

Chitin-lignin amendments for control of bean root rot. 6807

### LIGNOCELLULOSE

The utilization of ligno-cellulose by common mold fungi. 6816

### LILIUM LONGIFLORUM

The shallot aphid in the pacific northwest. 6452

### LIMA BEANS

Green-seeded downy mildew-resistant Fordhook lima beans. 6958

The effect of *Lygus* bug control on the yield of lima beans. 7033

Field tests with various insecticides for the control of *Lygus* bugs and the corn earworm on lima beans. 7066

Control of the two-spotted spider mite on beans with systemic insecticides applied in the soil. 7076

### LIME

Effect of lime applications to soil on Japanese beetle larval populations. 7048

Coralloid root systems in plants showing lime-induced chlorosis. 7715

### LIMNOLOGY

A limnological investigation of the Aufwuchs community in two mainstem Missouri River reservoirs. 6451

### LIMONIUS CALIFORNICUS

Experiments on control of the sugar-beet wireworm in southern California bean fields. 7111

### LINDANE

Laboratory evaluation of several insecticides against *Chrysops* larvae. 6549

Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae. 6657

Control of the woolly apple aphid on roots of apple nursery stock. 7011

Yield and quality of mushrooms from beds treated with lindane. 7075

Field studies of house fly resistance to organophosphorus insecticides. 7569

Chlorinated hydrocarbon insecticides as soil treatments against the eye gnat *Hippelates collusor* (Townsend) in the laboratory. 7576

Persistence of DDT, aldrin, and lindane in some midwestern soils. 7672

Toxic chemicals. 7685

### LINOGNATHUS

Cattle lice eradication studies- A-3-year evaluation. 7230

### LINOGNATHUS AFRICANUS

Preliminary biological observations on *Linognathus africanus* Kellog and Paine with a description of the first instar nymph (*Haematopinidae*, *Anoplura*). 6482

### LINURON

The effect of oils on herbicidal activity of atrazine and linuron and of waxes and oils on the movement of EPTC in soil. 7657

### LIPIDS

The free fatty acids and neutral lipids of the cuticular wax of the Mormon cricket, *Anabrus simplex*, Hald. 6605

### LIPOMATOSIS

Diffuse lipomatosis in a heifer. 7232

### LIPOVITELLIN

DDT-DEHYDROCHLORINASE iii. Solubilization of insecticides by lipoprotein. 6579

### LISTERIOSIS

A case of *Erysipelothrix monocytogenes* (*Listeria monocytogenes*) in the cat. 7367

A case of *Escherichia monocytogenes* (*Listeria monocytogenes*) in a cat. 7533

### LIVER

*Clostridium chavoei* common in normal adult dogs. 7222

Studies on coccidiosis and vitaminA nutrition of broilers. 7451

### LIVER DISEASES

The influence of physical form of roughages and antibiotic administration on performance, carcass characteristics, health, of the rumen epithelium, rumen volatile fatty acids and liver abscesses of steers fed all-concentrate rations. 7347

### LIVER FUNCTION TESTS

A simple test for bovine liver dysfunction. 7355

### LIVESTOCK

The growth of rabies virus in tissue culture and its use as a living attenuated vaccine for domestic animals. 7224

Toxic chemicals. 7245

First report of Johne s disease in the Sudan. 7268

Mycotoxicosis and animal disease. 7269

Bracken poisoning of farm animals. 7300

Observations on the blood picture of cattle, sheep and rabbits fed on kale. 7458

Face fly control. 7564

Development of a synthetic medium for aseptic rearing of larvae of *Stomoxys calcitrans* (L.). 7567

Residue studies of livestock sprays containing Sevin. 7678

### LIVESTOCK DISEASES

Porcine gastric ulcers in the United States a review. 7263

Symposium on calf diseases. 7330

Experimental production and control of urolithiasis. 7349

Current disease problems of horses. 7393

Disease control in Africa. 7433

### LOCOMOTION

Mechanism of locust jumping. 6498

### LOLIUM

Paraquat for selective control of range weeds. 7125



# SUBJECT INDEX

## MALATHION

- LONGEVITY**  
Comparisons of pea enation mosaic virus isolates. 6878  
An attempt to extend the longevity of the burrowing nematode, *Radopholus similis*, with citrus root exudate. 7098
- LONGIDORUS BREVICAUDATUS**  
On *Longidorus brevicaudatus* (Schuurmans Stekhoven, 1951) Thorne, 1961, a nematode parasite of citrus plants in the Punjab. 7097
- LONGITARSUS**  
Problems in the control of mint insects. 7009
- LONICERA**  
Starvation tests with larvae of the cinnabar moth. 7043
- LOXOSCELES RECLUSA**  
*Loxosceles reclusa* in southern California. 6472
- LOXOSTEGE**  
Influence of soil and moisture on the beet webworm, *Loxostege sticticalis*, and its parasites. 7112
- LUKUNI VIRUS**  
Bushbush, Ieri and Lukuni viruses, three unrelated new agents isolated from Trinidadian forest mosquitoes. 6683
- LUPINE**  
Malformed calf syndrome on Kodiak Island, Alaska. 7394
- LUTEOTROPIN**  
Lactogenic immunity to transmissible gastroenteritis of swine. 7335
- LYCTIDAE**  
A technique useful in comparing ponder-post beetle populations in the substructures of buildings. 6662
- LYGUS**  
Reappraisal of transmission of tobacco mosaic virus by insects. 6845  
A laboratory rearing method for *Lygus hesperus* knight. 6984  
The effect of *Lygus* bug control on the yield of lima beans. 7033  
Field tests with various insecticides for the control of *Lygus* bugs and the corn earworm on lima beans. 7066
- LYGUS HESPERUS**  
An artificial ovipositional site for some Heteroptera that insert their eggs into plant tissue. 6627
- LYGUS LINEOLARIS**  
Reappraisal of transmission of tobacco mosaic virus by insects. 6845
- LYMANTRIIDAE**  
*Heremocampa pseudotsugata* McDunnough, a new host for *Beauveria bassiana* (Balsamo) Vuillemin. 6524
- LYMPHATIC SYSTEM**  
Canine leukosis in Sweden. 7234
- LYMPHOCYTES**  
Lymphocyte counts relating to bovine lymphosarcoma. 7165
- LYMPHOCYTIC CHORIOMENINGITIS VIRUS**  
Antiviral activity of higher plants and propionin on lymphocytic choriomeningitis infection. 7313
- LYMPHOMA**  
A case of bovine lymphoma. 7271
- LYMPHOSARCOMA**  
Lymphocyte counts relating to bovine lymphosarcoma. 7165  
Sudden death in a calf associated with advanced lymphatic leucosis. 7266  
Bovine leukemia. 7289  
Bovine lymphosarcoma. 7379  
The clinical approach to abdominal disorders of the dog. 7502
- LYOPHILIZATION**  
The recovery of *Pasteurella multocida* from lyophilised cultures. 7265
- LYSIS**  
Infection inhibition and germ-tube lysis of three cereal rusts by *Bacillus pumilus*. 6827
- MACERATION**  
The macerating enzyme of *Rhizoctonia solani*. 7701
- MACRACANTHORHYNCHUS INGENS**  
Histochemical studies of larval *Macracanthorhynchus ingens* and certain spirobolid millipeds. 6495
- MACRONOCTUA**  
Relation of the iris borer to bacterial soft rot of iris. 6774
- MACROPHAGES**  
Rous sarcoma virus infection of chicken buffy coat macrophage. 7472
- MACROPHOMINA PHASEOLI**  
Control of the charcoal root disease of white fir by fall soil fumigation. 6913
- MACROSIPHUM**  
Vectors of alfalfa and bean yellow mosaic viruses in Ladino white clover. 6803  
Reappraisal of transmission of tobacco mosaic virus by insects. 6845
- MACROSIPHUM EUPHORBIAE**  
Reappraisal of transmission of tobacco mosaic virus by insects. 6845
- MACROSTELAS FASCIFRONS**  
Recovery of aster yellows from excised organs of insect vectors. 6770
- MADUROMYCOSIS**  
Maduromycosis of the bovine nasal mucosa. 7479
- MAGGOTS**  
Control of root maggots in swede turnips in Newfoundland with heptachlor and aldrin and the effect on parasites and overwintering pupae. 7039
- MAGNESIUM**  
Studies on the dietary requirement and interaction of magnesium with antibiotics in turkeys to 4 weeks of age. 7141  
Three methods for controlling grass tetany in cattle and sheep. 7202  
A field trial of a heavy magnesium pellet. 7558
- MAGNOLIA ROBUS**  
Antiviral activity of higher plants and propionin on lymphocytic choriomeningitis infection. 7313
- MALATHION**  
Laboratory selection of normal and chlordane-resistant German cockroaches for resistance to Malathion and Diazinon. 6535  
Effect of DDT resistance on the development of malathion resistance in house flies. 6574  
The effect of insecticides on transamination in the American cockroach. 6587  
The penetration of piperonyl butoxide as a synergist and as an antagonist in *Musca domestica* L. 6655  
Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae. 6657  
Field testing of insecticides for control of the Nantucket pine moth, *Rhyacionia frustrana*, and the European pine shoot moth, *R. buoliana*. 7001  
Evaluation of chemicals for control of a spider mite complex on cherry and peach. 7003  
Experiments for the control of sap beetles in sweet corn

# SUBJECT INDEX

## MALEIC HYDRAZIDE

- grown for processing. 7014
- The effects of DDT and malathion upon forest soil microarthropods. 7015
- Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958. 7042
- Observations on soybean insects in Maryland. 7051
- Response of different strains of the green peach aphid to malathion. 7060
- Biology and control of the apple seed chalcid in North Carolina. 7072
- Pickleworm control and residue studies with malathion and phosdrin. 7107
- Salt-marsh caterpillar control on cotton in Arizona. 7118
- Laboratory and field tests against mites and lice attacking poultry. 7562
- Residual effectiveness of certain insecticides in horn fly control. 7572
- House fly pupation under baseboards. 7575
- Malathion dust for chicken mite control. 7580
- The malathion dust-bath for control of five species of lice on chickens. 7581
- Stored-grain insects and their control in New Jersey. 7647
- Influence of grain moisture and storage temperature on the effectiveness of malathion as a grain protectant. 7649
- Malathion residues on and in the leaves of Phaseolus vulgaris. 7674
- Dissipation of malathion residues on tomato and pea. 7679
- Residues of malathion on alfalfa and in milk and meat. 7680
- Effect of mineral oil solvent on the toxicity and speed of action of malathion. 7686
- MALEIC HYDRAZIDE**  
Chloroplast number in leaves of normal wheat plants and those infested with hessian fly or treated with maleic hydrazide. 7052
- MALFORMED CALF SYNDROME**  
Malformed calf syndrome on Kodiak Island, Alaska. 7394
- MALIGNANT CATARRH**  
An outbreak of malignant catarrh among the Pere David deer. 7499
- MALVIDIN-3-MONOGLUCOSIDE**  
Inhibition of enzymes by the anthocyanin malvidin-3-monoglucoside. 7730
- MANNAALS**  
Structure and pesticidal activities of derivatives of dinitrophenols. III. structure and acaricidal activity of certain carbonates of 2-alkyl-5-methyl-4,6-dinitrophenols and related compounds. 7696
- MAMMILLARIA**  
External symptoms Giemsa-stainable cell inclusions associated with virus infection in cacti. 6720
- MANATEES**  
Mycosis in a manatee. 7285
- MANEB**  
Control of Cyindrosporium leaf spot disease of Rhus trilobata and Shepherdia argentea seedlings. 6855
- MANGANESE SULFATE**  
Fusarium wilt (race2) of tomato0 effect of lime and micro-nutrient soil amendments on disease development. 6775

- MANGE**  
Control of Myocoptes musculus on guinea pigs. 7583
- MANGOES**  
New record of the occurrence of mango shoot-gall disease in the Upper Indo-Gangetic Plain. 6921
- Susceptibility of life stages of the Mexican fruit fly to fumigation with ethylene chlorobromide. 6985
- MANTIDS**  
A preliminary account of the meiotic mechanism in nineteen species of the Indian mantids. 6537
- MANTIS RELIGIOSA**  
Histological studies on the deutocerebrum of Poecilocerupicus F (Orthoptera) and Mantis religiosa L (Dictyoptera). 6625
- MARASMIUS OREADES**  
Formation of hydrogen cyanide by the mycelial stage of a fairy ring fungus. 6795
- MARYLAND**  
Observations on soybean insects in Maryland. 7051
- MASONIELLA**  
Effect of the soil carbon nitrogen ratio on soil fungi. 6778
- MASTITIS**  
A report of the AVMA mastitis committee. The veterinary profession and programs of milk quality control. 7160
- Phage typing of Staphylococcus aureus. 7169
- Antibiotics in slow- and quick-release bases. 7256
- Identification and persistence of phage types of Staphylococcus aureus in dairy herds in Florida. 7291
- An evaluation of the California mastitis test and the N-greffi field test as indicators of subclinical bovine mastitis. 7299
- A practitioner's mastitis control program. 7338
- Incidence of mastitis in cows and buffaloes in north west India. 7389
- Mycobacterium fortuitum as a cause of bovine mastitis Tuberculin sensitivity following experimental infections. 7459
- Mastitis control proves its worth in New York. 7481
- Low leukocyte levels protect cows from coliform mastitis. 7494
- Towards control of mastitis. 7512
- Mastitis, metritis and diarrhea in swine. 7514
- Mastitis control programs effective in Connecticut. 7516
- Advertisements, antibiotics and mastitis. 7524
- Studies of a new penicillin, BRL 1921, for the treatment and control of staphylococcal mastitis in cows. 7556
- MATRICES**  
Enzymes from conidia and matrix of Colletotrichum orbiculare grown on a natural medium. 6857
- MATTHIOLA**  
Resistance in Matthiola incana to the turnip mosaic virus. 6884
- MEAL**  
Biological control of Phytophthora root rot of avocado with alfalfa meal. 6978
- MEALYBUG WILT**  
A study of mealybug populations (Dysmicoccus brevipes (Ck1.)) in an ant-free field. 6994
- MEASUREMENT**  
A simple method of measuring rate of plant virus movement from inoculated tobacco leaves to stem tips. 6750



# SUBJECT INDEX

## METHYL BROMIDE

- Dew, its significance and measurement in phytopathology. 7757
- MEASURING EQUIPMENT**  
Dew, its significance and measurement in phytopathology. 7757
- MEAT**  
Acute toxic effects upon livestock and meat and milk residues of dieldrin. 7677  
Residues of malathion on alfalfa and in milk and meat. 7680
- MEAT PACKING INDUSTRY**  
Salmonella and the U.S. meat industry action and reaction. 7331
- MEGASELIA**  
Yield and quality of mushrooms from beds treated with lindane. 7075
- MEIOSIS**  
A preliminary account of the meiotic mechanism in nineteen species of the Indian mantids. 6537
- MELANAGROMYZA OBUSA**  
A detailed morphological study of the external and internal genital organs of female *Melanagromyza obtusa* (Malloch), a serious pest of *Cajanus indicus* L. (Agromyzidae, Dip-tera). 6560
- MELANOPLUS**  
A mosaic virus transmitted by beetles and a grasshopper. 6926
- MELATONIN**  
Effect of melatonin on thyroid hormone secretion rate and feed consumption of female rats. 7444
- MELOIDOGYNE**  
A comparison of Fusarium wilt indices of cotton varieties with root-knot and sting nematodes as predisposing agents. 6727  
Effects of *Meloidogyne* spp. and *Tylenchorhynchus claytoni* on pea wilt incited by *Fusarium oxysporium* f. *pisi* race 1. 6732  
Variation within and among species of *Meloidogyne*. 6885  
Effects of rapid cooling to subzero temperatures on *Meloidogyne* hapla and *M. incognita*. 6887  
Development of *Meloidogyne* hapla and *M. incognita* in alfalfa. 7086  
Sweetpotato varietal reaction to species and races of root-knot nematodes. 7089  
Materials discharged by plant-parasitic nematodes. 7103  
Nematode-induced callus on carrot discs grown in vitro. 7109
- MELOIDOGYNE INCOGNITA ACRITA**  
Observations on the utilization of the hexose monophosphate pathway in nematode-infected roots of tomato. 7088
- MELONS**  
Control of *Pythium* damping-off of melons by simultaneous seeding and soil fumigation with chloropicrin. 6961
- MEMBRACIDAE**  
Membracidae attracted to black light. 6590
- MENACANTHUS**  
Economic importance of the chicken body louse. 7585
- MENACANTHUS STRABINEUS**  
Laboratory and field tests against mites and lice attacking poultry. 7562
- MENTHA PIPERITA**  
Influence of *Pratylenchus penetrans* alone and in combination with *Verticillium albo-atrum* on growth of peppermint. 6707  
Field disease cycle of peppermint rust. 6773
- MERCURY CHLORIDE**  
Effect of root extract of *Asparagus racemosus* and *Tagetes erecta* on hatching of eggs of *Meloidogyne javanica* and *Meloidogyne arenaria*. 7113
- METABOLISM**  
Relationship between metabolism and differential toxicity in insects and mice of Diazinon, dimethoate, parathion, and acephion. 6570  
Metabolism of resistant and susceptible cucumber varieties infected with cucumber mosaic virus. 6813  
Muscle necrosis and amyloidosis in the White Pekin duck. 7220  
Respiratory activity and enzymes for glucose catabolism in fungus spores. 7704  
Spore germination and carbon metabolism in *Fusarium solani*. 1. requirements for spore germination. 7709  
The mode of action of 2,6-dichloro-4-nitroaniline in *Rhizopus arrhizus* spores. 7729
- METABOLITES**  
Effects of X-rays, tryptophan metabolites, and eye color mutants on the tumor-suppressor system in *Drosophila melanogaster*. 6668  
A toxic metabolite from *Ascochyta fabae* having antibiotic activity. 6841  
The mode of action of diphenamid (N, N-dimethyl 2, 2-di-phenylacetamide) in plants. 7126  
Metabolism of methylcarbamate insecticide chemicals in plants. 7717
- METALDEHYDE**  
Metaldehyde poisoning. 7254  
Metaldehyde poisoning. 7449  
Metaldehyde poisoning in the dog. 7532  
Metaldehyde poisoning. 7549
- METALS**  
Evaluation of compounds of cadmium and related metals as reproduction inhibitors in insects. 6476
- METAMORPHOSIS**  
A study of the life history of the pigeon feather mite, *Falcnifer rostratus* (Buchholz), 1869, in vivo and in vitro. 6493  
The life history and the morphology of the earthworm mite, *Uroactinia anchor* (Trouessart, 1902) (Acarina0 Uropodidae) with preliminary ethnological study of behavior. 6594  
Effects of geographic isolation and host association on the evolution of sexuality in *Helminthosporium*. 6835  
In vitro sporidial germination of *Cronartium fusiforme*. 7716
- METEORUS**  
The bean leaf skeletonizer, *Autoplusia egea*, and its control on bush snap beans in the everglades. 7006
- METHALLYL CHLORIDE**  
Susceptibility of certain stages of the rice weevil to a methallyl chloride fumigant formulation in wheat of various moistures. 7045
- METHOXYCHLOR**  
Residual effectiveness of certain insecticides in horn fly control. 7572
- METHYL AND PROPARGYL BROMIDES PLUS TRICHLORONITROMETHANE**  
Control of the charcoal root disease of white fir by fall soil fumigation. 6913
- METHYL BROMIDE**  
A new crown rot of strawberry plants caused by *Colletotrichum fragariae*. 6772  
Fumigation of buildings to control the dry-wood termite,

# SUBJECT INDEX

## METRYL BROMIDE PLUS TRICHLORONITROMETHANE

- Cryptotermes brevis. 7646
- Effect of methyl bromide and hydrocyanic acid fumigation on the germination of flax seeds. 7650
- Effect of methyl bromide salmonella pullorum. 7700

## METRYL BROMIDE PLUS TRICHLORONITROMETHANE

- Control of the charcoal root disease of white fir by fall soil fumigation. 6913

## METHYL PARATHION

- The effects of chemical insecticides and insecticidal adjuvants of a Heliothis nuclear polyhedrosis virus. 6557
- Laboratory studies on the toxicity of various insecticides to different stages of the oriental fruit moth. 6988
- Field testing of insecticides for control of the Nantucket pine moth, Rhyacionia frustrana, and the European pine shoot moth, R. buoliana. 7001
- Salt-marsh caterpillar control on cotton in Arizona. 7118

## METRYL TRITHION

- Control of the grape leaf folder in California. 7064

## METRYL-U17ACETOXYPROGESTERONE, 6-

- A study of the effects of various hormone treatments on the reproductive activity of prepuberal and post-puberal beef heifers and lactating beef cows. 7528

## METRYL-6-METHOXY-8-HYDROXY-3,4-DIHYDROISOCOUMARIN, 3-

- Production of 3-methyl-6-methoxy-8-hydroxy-3,4-dihydroisocoumarin by carrot root tissue. 7736

## METHYLISOTRIOCYANATE

- Release of methylisothiocyanate from soils treated with Mylone (3,5-dimethyl-tetrahydro-1,3,5,2H thiadiazine-2-thione). 7744

## METRITIS

- Pyometra in the lioness (Panthera leo). 7408
- Mastitis, metritis and diarrhea in swine. 7514

## METRONIDAZOLE

- Effects of paromomycin sulfate on blackhead in turkeys. 7159

## MEVINPROS

- Influence of timing and insect biology on the effectiveness of insecticides applied for control of European pine shoot moth, Rhyacionia buoliana. 6991

- The bean leaf skeletonizer, Autoplusia egea, and its control on bush snap beans in the everglades. 7006

- The effect of Lygus bug control on the yield of lima beans. 7033

- Systemic insecticides for control of scales, leaf miners, and lace bugs. 7059

- Pickleworm control and residue studies with malathion and phosdrin. 7107

## MICE

- Stability, toxicity, and reaction mechanism with esterases of certain carbamate insecticides. 6509

- Exposure of white mice and guinea pigs to the nuclear-polyhedrosis virus of the cabbage looper, Trichoplusia ni. 6545

- Relationship between metabolism and differential toxicity in insects and mice of Diazinon, dimethoate, parathion, and acetion. 6570

- Fluorescent antibody studies for rabies in wildlife. 7163

- Granulocytopenia in germfree mice. 7251

- Antiviral activity of higher plants and propionin on lymphocytic choriomeningitis infection. 7313

- Disinfected water suppresses Pseudomonas in mice. 7357

- Incidence of infection with Trichinella spiralis in dogs. 7611

- Studies on the metabolism and residues of P32-labeled Delnav in a Hereford steer. 7676

## MICHIGAN

- Scientific notes. discovery in Michigan of Orgilus obscurator (Nees), a foreign parasite of the European pine shoot moth. 6465

## MICROARTHROPODS

- The effects of DDT and malathion upon forest soil microarthropods. 7015

## MICROBIOLOGY

- Biological studies of a new species of Anguina (Nematoda0 Tylenchidae) parasitic on Plantago aristata Michx. 7115

## MICROCOCCACEAE

- Bacteria of grasshoppers of western Canada II. The Pseudomonadaceae, Achromobacteraceae, Micrococcaceae, Brevibacteriaceae, Lactobacillaceae, and less important families. 6503

## MICROFILARIAL INFESTATIONS

- Periodicity of Dirofilaria in the peripheral circulation of dogs. 7171

## MICRONUTRIENTS

- Fusarium wilt (race2) of tomato0 effect of lime and micronutrient soil amendments on disease development. 6775

## MICROORGANISMS

- Symbiotic interrelationships between microbes and ambrosia beetles. II. the organs of microbial transport and perpetuation in Trypodendron betule and T. retusum (Coleoptera, Scolytidae). 6477

- Microbial isolations from the mid-gut of Culex tarsalis Coquillett. 6511

- The role of leaf microflora on epidemiology of the northern leaf blight of corn. 6697

- Effects of oat straw and supplemental nitrogen on microbial antagonism in bean rhizosphere. 6848

- Petal skin harbors most microorganisms. 7214

## MICROSCOPY

- Light microscopy of the virogenic stromata of cytopolyhedroses. 6663

## MICROSPORIUM

- Dermatophytosis (ringworm) pathogenesis, diagnosis, and treatment. 7250

## MIDOTHIOATE)

- The in vivo activity of several systemic insecticides against cattle grubs in South Dakota. 7582

## MILK

- Antibiotics in milk--Postponement of M.B.B. reduced price scheme. 7154

- The excretion of dieldrin, DDT, and heptachlor epoxide in milk of dairy cows fed on pastures treated with dieldrin, DDT, and heptachlor. 7668

- Acute toxic effects upon livestock and meat and milk residues of dieldrin. 7677

- Residues of malathion on alfalfa and in milk and meat. 7680

## MILK ANALYSIS

- An evaluation of some rapid tests on milk for the early detection of bovine ketosis. 7417

- Heptachlor residues on corn stover in relation to dairy cattle feeding. 7670

## MILK FEVER

- The responses of cows to experimentally induced hypocalcemia. 7457

## MILKY DISEASE

- Virulence of species and strains of milky disease bacteria in the European chafer, Amphimallon majalis (Razoumowsky). 6648



# SUBJECT INDEX

- MINERAL OIL**  
Effect of mineral oil solvent on the toxicity and speed of action of malathion. 7686
- MINKS**  
Blood serum protein from mink with aleutian disease. 7185  
Experimental transmission of Aleutian disease of mink. 7210  
Suspected synthetic oestrogen poisoning in mink. 7369  
Toxoplasmosis in mink. 7544
- MINNESOTA**  
Long-range aerial transport of the harlequin bug and the greenbug into Minnesota. 6456  
Salmonellosis in turtles in Minnesota. 7553
- MIRIDAE**  
The fungus *Entomophthora erupta* (Dustan) attacking the black grass bug, *Irbisia solani* (Heidemann) (Hemiptera, Miridae), in California. 6538
- MISSOURI RIVER**  
A limnological investigation of the Aufwuchs community in two mainstem Missouri River reservoirs. 6451
- MITES**  
The effect of infestation with *Acarapis woodi* (Rennie) on the mortality of honey bees. 6447  
The life history and the morphology of the earthworm mite, *Uroactinia anchor* (Trouessart, 1902) (Acarina0 Uropodidae) with preliminary ethnological study of behavior. 6594  
Occurrence of mite *Varroa jacobsoni* Oudemans in brood cells of honey bee, *Apis indica*f. 6612  
Field control of cotton mites with Aramite aerial spray in California. 6998  
Effects of soil insecticides on apple trees and resulting effect on mite nutrition. 7053  
Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition. 7054  
Laboratory and field tests against mites and lice attacking poultry. 7562  
Infestation of a parakeet with *Knemidokoptes pilae*. 7616
- MIYAGAWANELLA GROUP VIRUSES**  
Response of cows and calves to a Psittacosis-Lympho-granuloma group agents. 7186
- MO MO GENOTYPE**  
Breakdown of mo mo resistance in *Pisum sativum* by thermal selection within certain strains of the bean yellow mosaic virus (BV2). 6859
- MOBIL GPD 1442**  
Field control of cotton mites with Aramite aerial spray in California. 6998
- MOGHANIA MACROPHYLLA**  
Bionomics of *Hemithea tritonaria* Walker (Lepidoptera, Geometridae), a pest of *Moghania macrophylla* (Willd) O Ktze. 6591  
Incidence of predators and feasibility of their control through hand picking in lac cultivation on bush types of hosts. 7050
- MOLDS**  
The utilization of ligno-cellulose by common mold fungi. 6816  
The relation between storage molds and damage in high-moisture rice in aerated storage. 6894
- MOLECULES**  
Changes in multiple molecular enzymes in rusted bean leaves. 6923
- MONACRIN**  
The in vivo activity of several systemic insecticides against cattle grubs in South Dakota. 7582
- MONILIASIS**  
Candidiasis in pigs in northwest Wisconsin. 7235
- MONILINIA**  
Plant introduction sour cherry selections - probable sources of brown rot resistance. 6823  
Hydrothermal and hygrothermal inactivation of *Monilinia fructicola* and *Rhizopus stolonifer* spores. 6912  
The effect of n-dodecylguanidine acetate on enzyme activity and the nucleotides of ribonucleic acid. 7749
- MONKEYS**  
*Crotalaria spectabilis* intoxication in Rhesus monkeys. 7226  
Fibrous dysplasia in a monkey and a kudu. 7555  
Thiabendazole as an anthelmintic in research monkeys. 7606
- MONOAMINE OXIDASE**  
Toxicity of some hydrazine tranquillisers to dogs. 7446
- MONTANA**  
Overwintering of stripe rust in winter wheat in Montana. 6904
- MONURON**  
An evaluation of atrazine, simazine, monuron and diuron on ten Hawaiian sugar cane plantations. 7132
- MORPHOLOGY**  
Purification, morphology, and biochemical characterization of the Wisconsin pea streak virus. 6872  
Morphological changes in a parasitic nematode due to acquired resistance of the host. 7624
- MORTALITY**  
Effects of temperature on mortality of *Heliothis zea* larvae exposed to sublethal doses of a nuclear polyhedrosis virus. 6558  
Mortality and fertility response of *Musca domestica* Linnaeus to certain known mutagenic or anti-tumor agents. 6566  
Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae. 6657  
Mortality factors for the vetch bruchid, *Bruchus brachialis*. 7000  
Effects of low temperature on the survival of the alfalfa weevil from Alberta and Utah. 7047  
Effect of pasteurized bacterin on mortality and pneumonia in lambs. 7339  
Pattern of mortality in avian nephrosis. 7454  
Mortality and morbidity in calves with salmonellosis. 7489
- MOSAIC (AGROPYRON REPENS)**  
Relation of *Agropyron repens* mosaic and wheat streak mosaic virus. 6922
- MOSAIC (ALFALFA)**  
An investigation of thermal inactivation of alfalfa mosaic virus. 6817
- MOSAIC (BEAN YELLOW)**  
Vectors of alfalfa and bean yellow mosaic viruses in Ladino white clover. 6803
- MOSAIC (BEANS)**  
Progressive distribution of southern bean mosaic virus antigen in bean leaves determined with a fluorescent antibody stain. 6969  
Transmission of bean mosaic virus in relation to length of probes by aphids allowed either one or several acquisition

# SUBJECT INDEX

- MOSAIC (BROMUS)  
probes. 6980
- MOSAIC (BROMUS)  
Purification and properties of bromegrass mosaic virus. 6723
- MOSAIC (COWPEAS)  
Serological relationship between bean pod mottle virus and cowpea mosaic viruses from Arkansas and Trinidad. 6906
- MOSAIC (CUCUMBERS)  
Metabolism of resistant and susceptible cucumber varieties infected with cucumber mosaic virus. 6813
- Two unrelated viruses which cause woodiness disease of passion fruit (*Passiflora edulis*). 6937
- MOSAIC (RASPBERRIES)  
Influence of heat-labile components of the raspberry mosaic virus complex on growth and yield of red raspberries. 6724
- MOSAIC (REDPEPPERS)  
Identification of the viruses affecting commercial varieties of pepper (*Capsicum annuum*) in New Jersey. 6925
- MOSAIC (SOYBEANS)  
Interaction of the soybean mosaic and bean pod mottle viruses infecting soybeans. 6873
- MOSAIC (SUGARCANE)  
Effect of heat treatment of sugarcane for control of ratoon stunting disease (RSD) on spread of mosaic. 6981
- MOSAIC (TOBACCO)  
Synthesis of tobacco mosaic virus forms in nucleus and cytoplasm. 6700
- Studies on tobacco mosaic virus (TMV) infection of suspended callus cells. 6830
- Reappraisal of transmission of tobacco mosaic virus by insects. 6845
- Effects of ultraviolet preinoculation treatment of leaves on subsequent infection by tobacco mosaic virus and TMV. ribonucleic acid. 6899
- The nature of stain uptake in ultrathin sections of tobacco mosaic virus. 6901
- Studies on the aggregation of tobacco mosaic virus in the ground cytoplasm and chloroplasts of tomato. 6902
- Tobacco mosaic virus activity and growth of inoculated tobacco secondary single-cell clones. 6907
- Effects of some cytokinins on tobacco and their relation to tobacco mosaic virus infection. 6915
- The role of the coat protein in the inactivation of tobacco mosaic virus by ultraviolet light. 6931
- Sedimentation properties of two stone fruit viruses. 6940
- An electron microscope study of TMV lesions in *Nicotiana glutinosa*. 6955
- Heat activation of different strains of tobacco mosaic virus infection on varieties of beans (*Phaseolus vulgaris*). 6970
- Release of inhibited tobacco mosaic virus (TMV) infection by ultraviolet irradiation as affected by time and temperature after inoculation. 6971
- MOSAIC (TULIPA)  
Purification of tulip breaking virus. 6973
- MOSAIC (TURNIPS)  
Resistance in *Matthiola incana* to the turnip mosaic virus. 6884
- MOSAIC (WHITE CLOVER)  
Seed transmission of white clover mosaic and clover yellow mosaic viruses in red clover. 6760
- MOTHS  
Some relationships between *Perezia pyraustae* Paillot (Sporozoa, Nosematidae) and *Pyrausta nubilalis* (Hubner) (Lepidoptera, Pyralidae). 6459
- On the structure of cytoplasmic polyhedra of some lepidoptera. 6489
- Fungus infection of insects via the alimentary tract. 6530
- The site of action of crystalliferous bacteria in Lepidoptera larvae. 6543
- MOTTLE (BEAN POD)  
Serological relationship between bean pod mottle virus and cowpea mosaic viruses from Arkansas and Trinidad. 6906
- MOTTLE (BEAN PODS)  
Interaction of the soybean mosaic and bean pod mottle viruses infecting soybeans. 6873
- MOUTH PARTS  
Mouthparts of the biting and blood-sucking type in Tanyderidae and Chironomidae (Diptera). 6521
- MUCOR  
Multiplication of *Xanthomonas vesicatoria* on tomato seedlings. 6796
- MURGANTIA  
Long-range aerial transport of the harlequin bug and the greenbug into Minnesota. 6456
- MUSCA  
Face fly control. 7564
- MUSCA DOMESTICA  
Evaluation of compounds of cadmium and related metals as reproduction inhibitors in insects. 6476
- Syntheses of the aliphatic deuterium analogs of DDT and TDE and their toxicity and degradation when applied to adult house flies. 6485
- Cumulative effect of sublethal doses of myristyl chloroacetate on a highly DDT-resistant strain of *Musca domestica* L. 6491
- The histopathological effects of certain carcinogenic 2-fluorenamine derivatives on larvae of the house fly. 6507
- Stability, toxicity, and reaction mechanism with esterases of certain carbamate insecticides. 6509
- The susceptibility of the house fly, *Musca domestica* Linnaeus, to *Bacillus thuringiensis* var. *thuringiensis* Berliner. 6539
- Mortality and fertility response of *Musca domestica* Linnaeus to certain known mutagenic or anti-tumor agents. 6566
- Relationship between metabolism and differential toxicity in insects and mice of Diazinon, dimethoate, parathion, and acethion. 6570
- Effect of DDT resistance on the development of malathion resistance in house flies. 6574
- DDT-DEHYDROCHLORINASE iii. Solubilization of insecticides by lipoprotein. 6579
- The house cricket, *Acheta domesticus*, and the house fly, *Musca domestica*, as a model predator-prey system. 6613
- Dispersal of viable algae and protozoa by horse flies and mosquitoes (Diptera, Tabanidae, Culicidae). 6616
- The effects on house flies of adding wheat germ and corn oils to fly media. 6654
- The penetration of piperonyl butoxide as a synergist and as an antagonist in *Musca domestica* L. 6655
- The influence of selection pressure on the development of resistance in populations of *Tetranychus telarius* (L.). 6656



# SUBJECT INDEX

		N-BUTANOL	
A preliminary report on mutations in the house fly.	6676	MYCOCASTOR	
Methylenedioxyphenyl derivatives as synergists for carbamate insecticides on susceptible, DDT-, and parathion-resistant house-flies.	6679	Leptospire isolated from Nutria.	7133
Comparative value of some synthetic compounds as synergists with barthrin in house fly sprays.	6680	MYCOLOGY	
Screening tests with synthetic compounds as synergists for house fly sprays.	6682	Heterothallism in <i>Pyrenophora teres</i> .	6809
Selective toxicity and animal systemic effectiveness of several organophosphates.	7563	MYCOPLASMA	
House fly control in pig parlors.	7566	Polyserositis-arthritis complex in swine.	7182
Field studies of house fly resistance to organophosphorus insecticides.	7569	Standardized infections for laboratory evaluation of compounds against a chronic respiratory disease complex in chickens.	7315
House fly pupation under baseboards.	7575	Identification of <i>Mycoplasma gallisepticum</i> in lesion tissue by immunofluorescence.	7445
Methods for the evaluation of stable fly toxicants and repellents.	7579	MYCOPLASMA GALLISEPTICUM ANTIGENS	
Toxicity to house fly larvae of droppings from chickens fed insecticide-treated rations.	7584	Experimental infection of chickens with <i>Mycoplasma gallisepticum</i> and subsequent re-isolation of the organism from the body tissues.	7478
Relationships between structure and insecticidal activity of some organotin compounds.	7688	MYCOPLASMOSIS	
Pyrethrins and related compounds. ix. alkenbenzyl and benzylbenzyl chrysanthemates.	7690	Isolation of <i>Mycoplasma</i> sp. from the oviducts of dairy cows.	7358
Toxicological aspects of 2,2-dichlorovinyl dimethyl phosphate (DDVP) in cows, horses, and white rats.	7699	MYCOSIS	
MUSCLES		Mycosis in a manatee.	7285
Muscle necrosis and amyloidosis in the White Pekin duck.	7220	MYCOSPHAERELLA	
Suspected myasthenia gravis in a dog.	7336	Studies on ascospore production by <i>Mycosphaerella musicola</i> in Honduras.	6930
MUSCULAR DYSTROPHY		MYCOSTATIN	
Muscular dystrophy in calves Simultaneous peracute and progressive types.	7316	Absorption, toxicity, and bio-assay of high-potency fungicides in <i>Prunus domestica</i> .	6765
MUSHROOMS		MYCOTOXICOSIS	
Possible detrimental effect of <i>Pythium artotrogus</i> on the cultivated mushroom.	6748	Mycotoxicosis and animal disease.	7152
Transmission of a virus disease of mushrooms by infected spores.	6890	Mycotoxicosis and animal disease.	7269
Yield and quality of mushrooms from beds treated with lindane.	7075	MYLONE	
MUSTARD GREENS		Release of methylisothiocyanate from soils treated with Mylone (3,5-dimethyl-tetrahydro-1,3,5,2H thiadiazine-2-thione).	7744
Nicotine residues in field-treated cauliflower, celery, green beans, kale, mustard greens and spinach.	7661	MYOCOPTES	
MUTAGENS		Control of <i>Myocoptes musculus</i> on guinea pigs.	7583
Mortality and fertility response of <i>Musca domestica</i> Linnaeus to certain known mutagenic or anti-tumor agents.	6566	MYODEGENERATION	
MYCANGIA		Myodegeneration in cattle grazing cassia species.	7354
Symbiotic interrelationships between microbes and ambrosia beetles. ii. the organs of microbial transport and perpetuation in <i>Trypodendron betule</i> and <i>T. retusum</i> (Coleoptera, Scolytidae).	6477	MYOPATHY	
MYCELIUM		White muscle disease, a selenium-responsive myopathy.	7443
Formation of hydrogen cyanide by the mycelial stage of a fairy ring fungus.	6795	MYRISTYL CHLOROACETATE	
Mycelial protein comparisons of isolates of cucurbit anthracnose fungi.	6808	Cumulative effect of sublethal doses of myristyl chloroacetate on a highly DDT-resistant strain of <i>Musca domestica</i> L.	6491
MYCOBACTERIUM		MYXOVIRUSES	
Significance of johnin test on naturally infected cattle.	7192	The growth of rabies virus in tissue culture and its use as a living attenuated vaccine for domestic animals.	7224
Human tuberculosis in an otter.	7253	Studies on an experimental vaccine for prophylaxis of shipping fever.	7314
Mycobacterium fortuitum as a cause of bovine mastitis Tuberculin sensitivity following experimental infections.	7459	Studies on myxovirus parainfluenza-3 vaccine for prevention of shipping fever in cattle.	7395
		Epizootiology of bovine myxovirus parainfluenza 3(sf-4) in Nebraska cattle as determined by antibody titers.	7398
		MYZUS	
		The shallot aphid in the pacific northwest.	6452
		Instability of symptoms of potato leaf roll virus.	6800
		Vectors of alfalfa and bean yellow mosaic viruses in Ladino white clover.	6803
		MYZUS PERSICAE	
		Morphological and physiological distinction between two populations of the peach-potato aphid.	6523
		N-BUTANOL	
		Purification and properties of bromegrass mosaic virus.	6723

# SUBJECT INDEX

## N-BUTYLAMINE

Properties of tulare apple mosaic virus. 6821

## N-BUTYLAMINE

Control of *Penicillium* decay of oranges with certain volatile aliphatic amines. 6741

## n-DODECYLGUANIDINE ACETATE

The effect of n-dodecylguanidine acetate on enzyme activity and the nucleotides of ribonucleic acid. 7749

## N-POLYHALOETHYLTHIO HYDANTOINS

Comparative bactericidal properties of N-polyhaloethylthio hydantoin. 7737

## N-PROPYLAMINE

Control of *Penicillium* decay of oranges with certain volatile aliphatic amines. 6741

## NABAM

Inversion phenomenon induced by nabam derivatives. 6728

## NABIS AMERICOPHERUS

An artificial ovipositional site for some Heteroptera that insert their eggs into plant tissue. 6627

## NALED

Selective toxicity and animal systemic effectiveness of several organophosphates. 7563

## NAPHTHENES

The effect of oils on herbicidal activity of atrazine and linuron and of waxes and oils on the movement of EPTC in soil. 7657

## NAPHTHOL, 1-

Residues of Sevin and 1-naphthol on forage from aerial applications of Sevin in oil. 7020

## NAPHTHYL-N-METHYL CARBAMATE, 1-

Control of the grape leaf folder in California. 7064

## NARCISSUS TAZETTA

Antiviral activity of higher plants and propionin on lymphocytic choriomeningitis infection. 7313

## NASAL MUCOSA

Maduromycosis of the bovine nasal mucosa. 7479

## NEBRASKA

Epizootiology of bovine myxovirus parainfluenza 3(sf-4) in Nebraska cattle as determined by antibody titers. 7398

## NECK ROT (ONIONS)

Control of Botrytis neck rot of onions by fungicidal dusts and desiccant chemicals. 6779

## NECROSIS

Detection of the tobacco vein necrosis strain of potato virus Y in *Solanum cardenasii* and *S. andigenum* introduced into the United States. 6776

Movement of tobacco necrosis virus in systemically infected soybeans. 6867

Muscle necrosis and amyloidosis in the White Pekin duck. 7220

Pathologic changes associated with feeding various levels of *Crotalaria spectabilis* seed to poultry. 7508

## NECROTIC RING SPOT (BLUEBERRIES)

Relationships of viruses associated with ringspot diseases of blueberry. 6798

## NECROTIC RING SPOT (PRUNUS)

Comparison of strains of *Prunus* necrotic ringspot and prune dwarf viruses with viruses of the Pfeffinger (rasp leaf) type. 6696

## NEMAPHOS

Effect of root extract of *Asparagus racemosus* and *Tagetes erecta* on hatching of eggs of *Meloidogyne javanica* and *Meloidogyne arenaria*. 7113

## NEMATOCIDES

Hairy root (*Agrobacterium rhizogenes*) of field roses. 6829

## NEMATODE VECTORS

Hairy root (*Agrobacterium rhizogenes*) of field roses. 6829

## NEMATODES

Record of nematodes parasitising *Chilo zonellus* Swinhoe stem borer of maize. 6585

A nematode parasite of the alfalfa weevil (*Hypera postica* (Gyll.)). 6614

Potential use of Dylox and other insecticides in a control program for field crop pests in California. 6687

A comparison of *Fusarium* wilt indices of cotton varieties with root-knot and sting nematodes as predisposing agents. 6727

A plant-parasitic nematode of the genus *Rotylenchulus* found in California. 7102

Materials discharged by plant-parasitic nematodes. 7103

Decline of grapefruit trees in relation to citrus nematode populations and tree recovery after chemical treatment. 7106

Lesion nematode injury to carrot. 7108

Nematode-induced callus on carrot discs grown in vitro. 7109

The histological relationship of resistance to the citrus nematode in certain citrus rootstocks. 7114

Gastrointestinal nematodes in beef yearlings. 7215

Morphological changes in a parasitic nematode due to acquired resistance of the host. 7624

Survival of encysted eggs and larvae of the soybean cyst nematode, *Heterodera glycines*, ingested by swine. 7632

The activity of the fungus, *Catanaria anguillulae*, against plant-parasitic nematodes. 7719

## NEMATODIASIS

The control of *Nematodirus fillicollis* infection by strategic anthelmintic medication. 7321

The action of pure microbial phenothiazine on the infestations of *Nematodirus battus* in lambs. 7612

A simple method for the culture and recovery of larvae of intestinal nematodes of sheep. 7636

## NEMATODIRUS

Thiabendazole as an anthelmintic in cattle and sheep. 7588

## NEOAPLECTANA CHRESINA

Record of nematodes parasitising *Chilo zonellus* Swinhoe stem borer of maize. 6585

## NEOMYCIN

Salmonella resistance increases. 7424

## NEOPLASMS

Effects of X-rays, tryptophan metabolites, and eye color mutants on the tumor-suppressor system in *Drosophila melanogaster*. 6668

An unusual spindle-cell tumour of the mandible of a cow. 7296

Bovine lymphosarcoma. 7379

Fibrous dysplasia in a monkey and a kudu. 7555

## NEPHRITIS

Role of aggregated bovine serum albumin in pathogenesis of serum sickness nephritis in rabbits. 7403

## NERIUM

Physiological factors involved in tumor production by the oleander knot pathogen, *Pseudomonas savastanoi*. 6802

Pathological histology of tumors induced in oleander by *Pseudomonas savastanoi*. 6967



## SUBJECT INDEX

## NUCLEIC ACIDS

- NERVES**  
Chemical changes in nerves from birds affected by fowl paralysis. 7351
- NERVOUS SYSTEM**  
Neurosecretory system of Heteroptera (Hemiptera) and a role of the aorta as a neurohaemal organ. 6520  
Potency tests of semple-type rabies vaccines of nervous tissue origin for use in animals. 7283  
Effect of *Latrodectus mactans tredecimguttatus* venom on the crayfish stretch receptor neurone. 7692
- NET BLITCH (BARLEY)**  
Studies on the nature of barley resistance to *Helminthosporium teres*. 6780
- NEUROPTERA**  
Polyhedroses in neuropterous insects. 6684
- NEW HAMPSHIRE**  
The effect of dapple apple and stem pitting on apple tree growth and yields in New Hampshire over a fourteen-year period. 6868
- NEW JERSEY**  
Field evaluation of Sevin as an insecticide for pests of vegetables in New Jersey. 7010  
Stored-grain insects and their control in New Jersey. 7647
- NEW MEXICO**  
The *Culicoides* of New Mexico (Diptera, Ceratopogonidae). 6446
- NEW ZEALAND**  
Bacterial spot of ivy caused by *Xanthomonas hederae* (Arnaud, 1920, Dowson 1939, in New Zealand. 6740  
Insecticides in human fat in New Zealand. 7663
- NEWCASTLE DISEASE**  
Report of the committee on fowl pest, 1962. 7149  
Duration of immunity against Newcastle disease in chicks vaccinated with beta-propiolactone inactivated vaccine. 7390
- NEWCASTLE DISEASE VACCINES**  
Report of the committee on fowl pest, 1962. 7149  
The relative value of formalin and betapropiolactone as inactivating agents for Newcastle disease vaccine. 7231  
Duration of immunity against Newcastle disease in chicks vaccinated with beta-propiolactone inactivated vaccine. 7390  
Duration of immunity trials with betapropiolactone-inactivated Newcastle disease virus vaccines. 7461
- NEWCASTLE DISEASE VIRUS**  
Effects of cortisol and adrenalectomy on induction of interferon by endotoxin. 7468
- NICARAGUA**  
Cotton insects in Nicaragua. 7036
- NICOTINE**  
The suitability of tobaccos for the growth of the cigarette beetle, *Lasioderma serricorne*. 7081  
Materials discharged by plant-parasitic nematodes. 7103  
Nicotine residues in field-treated cauliflower, celery, green beans, kale, mustard greens and spinach. 7661
- NICOTINIANA**  
The response to temperature of cabbage virus A infection in *Nicotiana glutinosa*. 6758
- NIGROPALLIDAL ENCEPHALOMALACIA**  
Nigropallidal encephalomalacia in the horse. 7307
- NIPAEOCOCCUS VASTATOR**  
Further records of parasites of *Nipaeococcus vastator* Mas-kell (Homoptera, Coccidae) from India. 6475
- NITRATES**  
Diagnosis and causes of nitrate poisoning. 7513
- NITROBENZENE**  
Pathogenicity of chlorinated-nitrobenzene-tolerant strains of *Hypomyces solani* f. *cucurbitae* race 2. 7713  
Tolerance to chlorinated nitrobenzenes in *Hypomyces solani* f. *cucurbitae* and its mode of inheritance. 7738
- NITROFURANS**  
The use of Thiofuradene as a growth stimulant and anthelmintic in the production of pork in the Bahamas. 7302  
Intensive veal production and a hitherto untried nitrofurant A preliminary trial. 7329
- NITROFURAZONE**  
Salmonella resistance increases. 7424
- NITROGEN**  
The influence of various nitrogen compounds on sexual reproduction in *Hypomyces solani* f. *cucurbitae*. 6699  
Effect of the soil carbon nitrogen ratio on soil fungi. 6778  
Microbial antagonism in bean rhizosphere as affected by oat straw and supplemental nitrogen. 6847  
Effects of oat straw and supplemental nitrogen on microbial antagonism in bean rhizosphere. 6848  
Plant extracts, residues, and soil minerals in relation to competition of quackgrass (*Agropyron repens*) with oats and alfalfa. 7128  
Toxicity of nitrate nitrogen to cattle. 7423  
Some factors that influence the deactivation of atrazine in soil. 7654
- NITROPHENOL**  
The treatment of ankylostomiasis and of spirocercosis in dogs by the new compound, 2,6-diiodo-4-nitrophenol. 7607
- NOCARDIA**  
Diagnosis antigens for the detection of nocardiosis in animals. 7460
- NOCARDIOSIS**  
Diagnosis antigens for the detection of nocardiosis in animals. 7460
- NOCTUIDAE**  
Content of nucleic acid in intact nuclear polyhedral bodies isolated from virus-infected beet armyworms *Spodoptera exigua* (Lepidoptera Noctuidae). 6526  
Hypoproteinemia in a noctuid larva during the course of a granulosis. 6582
- NOMENCLATURE**  
The designation of chemicals in terms of the responses they elicit from insects. 6518
- NORTHERN IRELAND**  
The incidence of lead poisoning in calves in Northern Ireland. 7529
- NORTHERN LEAF BLIGHT (CORN)**  
The role of leaf microflora on epidemiology of the northern leaf blight of corn. 6697
- NORTHWEST**  
Problems of anaplasmosis control in tick-infested areas of the Northwest. 7474
- NOSEMA DISEASE**  
Surveys for nosema disease of honey bees in California. 7021
- NUCLEIC ACIDS**  
Content of nucleic acid in intact nuclear polyhedral bodies isolated from virus-infected beet armyworms *Spodoptera exigua* (Lepidoptera Noctuidae). 6526

# SUBJECT INDEX

## NUCLEOTIDES

### NUCLEOTIDES

The effect of n-dodecylguanidine acetate on enzyme activity and the nucleotides of ribonucleic acid. 7749

### NUTRIA

Leptospire isolated from Nutria. 7133

### NUTRIENT SOLUTIONS (PLANTS)

Spring black stem of alfalfa in relation to temperature, moisture, wounding, and nutrients and some observations on pathogen dissemination. 6866

Reproduction of *Pratylenchus penetrans* on corn roots cultured on various nutrient media. 6896

### NUTRITION

Pathogenicity, vitamin nutrition, and cultural characteristics of isolates of *Phytophthora parasitica* from carnation and other hosts in Hawaii. 6768

### O-(3-CHLORO-4-NITRO-PHENYL) O,O-DIMETHYL PHOSPHOROTHIOATE)

Laboratory studies on the toxicity of various insecticides to different stages of the oriental fruit moth. 6988

### O-(4-TERT-BUTYL-2-CHLOROPHENYL) O-METHYL METHYL-PHOSPHORA-

The in vivo activity of several systemic insecticides against cattle grubs in South Dakota. 7582

### O-METHYL O-(4-TERT-BUTYL CHLOROPHENYL) ETHYLPHOSPHORAMIDO-

Toxicity of organic phosphorus insecticides to horses. 7694

### O,O-DIETHYL O-NAPHTALIMIDOPHOSPHOROTHIOATE

Control of the grape leaf folder in California. 7064

### O,O-DIETHYL S-(ISOPROPYLTHIO) METHYL PHOSPHORODITHIOATE

Insecticidal control of the Hessian fly. 6987

### O,O-DIETHYL S(2-DIETHYLAMINO)-ETHYL PHOSPHOROTHIOATE

Laboratory studies on the effectiveness of Chipman R-6199 against some cotton pests. 7070

### OAT STRAW

Microbial antagonism in bean rhizosphere as affected by oat straw and supplemental nitrogen. 6847

Effects of oat straw and supplemental nitrogen on microbial antagonism in bean rhizosphere. 6848

### OATS

Effects of barley yellow dwarf virus on yield of oats as influenced by variety, virus strain, and developmental stage of plants at inoculation. 6744

Greenbug dispersal and distribution of barley yellow dwarf virus in Wisconsin. 6812

Effects of *Ustilago avenae* on growth of two oat varieties. 6832

Free amino acid and amide content of tobacco and oats infected by wildfire and halo blight bacteria. 6851

Measuring the pathogenic potential of *Puccinia coronata* var. *avenae*. 6879

Uptake of *Helminthosporium victoriae* toxin by oat tissue. 6889

Photosynthetic phosphorylation by chloroplasts isolated from rust-infected oats. 6972

Plant extracts, residues, and soil minerals in relation to competition of quackgrass (*Agropyron repens*) with oats and alfalfa. 7128

Factors affecting invasion of grains and seeds by *Aspergillus flavus* and effects of the fungus on germination of the seeds. 7644

The effect of oils on herbicidal activity of atrazine and linuron and of waxes and oils on the movement of EPTC in soil. 7657

Influence of oat and alfalfa residues on soil respiration, fungistasis, and survival of *Verticillium albo-atrum*. 7723

OCTACHLORO-3a,4,7a-TETRAHYDRO-4,7-METHANOPHTHALAN,1,3,4,5, The bean leaf skeletonizer, *Autoplusia egea*, and its control on bush snap beans in the everglades. 7006

### OESOPHAGOSTOMUM

Thiabendazole as an anthelmintic in research monkeys. 7606

### OESTRIDAE

Control of *Dermatobia hominis* in Central America. 7594

Further experiences with the systemic insecticides Etrylene and Ruelene in 1960-61. 7600

### OHIO

Viral causes of bovine abortion in Ohio. 7493

### OILS

The effects on house flies of adding wheat germ and corn oils to fly media. 6654

Relation of *Cercospora* infection to oil application on the dorsal or ventral side of tung leaves. 6948

The effect of oils on herbicidal activity of atrazine and linuron and of waxes and oils on the movement of EPTC in soil. 7657

Effects of relative humidity and temperature on the degradation of peanut sugar and oil by *Aspergillus flavus*. 7714

### OLEFINS

Pyrethrins and related compounds. ix. alkenbenzyl and benzylbenzyl chrysanthemates. 7690

### OLPIDIUM

Prolonging the motility and virus-transmitting ability of *Olpidium* zoospores with chemicals. 7726

### OMASUM

A case of distension of the omasum. 7371

### ONIONS

Control of *Botrytis* neck rot of onions by fungicidal dusts and desiccant chemicals. 6779

Studies on the host preference of the onion thrips, *Thrips tabaci* Lindeman on the varieties of onion. 7073

### OOGONIUM GERMINATION

Oogonium germination in *Phytophthora infestans*. 7724

### OOSPORES

Oospore characters in the classification of *Sclerophthora* and *Sclerospora* species. 6883

Oogonium germination in *Phytophthora infestans*. 7724

A slender-spored *Dactylella* parasitic on *Pythium* oospores. drechsler, c. 7728

### OPEROPHTERA

A newly described virus of the winter moth, *Operophtera brumata* Hiibner (Lepidoptera, Geometridae). 6660

### OPTIC NERVE

Postembryonic development of the optic ganglia in *Bombyx mori*. 6623

### ORANGE STAIN

Orange stain, a storage disease of rice caused by *Penicillium puberulum*. 6895

### ORANGES

Control of *Penicillium* decay of oranges with certain volatile aliphatic amines. 6741

### ORGANIC COMPOUNDS

Control of *Penicillium* decay of oranges with certain volatile aliphatic amines. 6741

Toxicity of organic phosphorus insecticides to horses. 7694

### ORGANOPHOSPHORUS COMPOUNDS

Organochlorine pesticides in Antarctica. 7684



# SUBJECT INDEX

## PARAINFLUENZA-3 VIRUS

- ORGANOTIN COMPOUNDS**  
Relationships between structure and insecticidal activity of some organotin compounds. 7688
- ORGILUS OBSCURATOR**  
Scientific notes.  
discovery in Michigan of *Orgilus obscurator* (Nees), a foreign parasite of the European pine shoot moth. 6465
- ORIUS TRISTICOLOR**  
An artificial ovipositional site for some Heteroptera that insert their eggs into plant tissue. 6627
- ORNAMENTAL TREES**  
The effect of *Criconeoides curvatum* and *Pratylenchus penetrans* on woody ornamentals. 7099
- ORNITHONYSSUS**  
Control of the tropical rat mite. 6678
- ORNITHONYSSUS SYLVIARUM**  
Laboratory and field tests against mites and lice attacking poultry. 7562  
Control of the northern fowl mite, *Ornithonyssus sylviarum* (C. + F.), with ronnel, Bayer 113/59, and Bayer 21/199. 7573
- ORNITHOSIS**  
Experimental ornithosis in calves. 7147
- ORTHOCIDE**  
Effects of 2,6-dichloro-4-nitroaniline on *Rhizopus* species and its comparison with other fungicides on control of *Rhizopus* rot of peaches. 6838
- OSMOSIS**  
Resistance to powdery mildew in grapevines related to osmotic value and associated factors. 6756
- OSTEOPHYTES**  
Vertebral osteophytes in the cat. 7243
- OSTERTAGIA**  
Thiabendazole as an anthelmintic in cattle and sheep. 7588  
Efficacy of thiabendazole against *Cooperia* spp. and *Ostertagia ostertagi* in cattle. 7631
- OSTEINIA NUBILALIS**  
Heptachlor residues on corn stover in relation to dairy cattle feeding. 7670
- OTITIS**  
Surgical treatment of chronic otitis in a Poodle. 7373  
The occurrence of *Baillietia auris* in Zebu cattle in Nigeria. 7609
- OTTERS**  
Human tuberculosis in an otter. 7253
- OUCHTERLONY AGAR**  
Rapid plant virus assay combines density-gradient centrifugation and Ouchterlony agar diffusion serological tests. 7712
- OVARIES**  
Studies on ovarian structure, function and growth in adult *Drosophila pseudo-obscura*. 6661
- OVEX**  
Citrus red mites resistant to demeton and ovex and their response to Tedion and Kelthane. 7040
- OVINE ABORTION VIRUS**  
Ovine abortion virus in ewes and fetuses. 7195
- OVINE VIBRIOSIS**  
Ineffectivity of furazolidine in ovine vibriosis. 7167
- OVIPOSITION**  
The effect of grain moisture upon development of the rice weevil in green corn. 7049
- OVIPOSITORS**  
An artificial ovipositional site for some Heteroptera that insert their eggs into plant tissue. 6627
- OXIDASES**  
An inexpensive, versatile oxygen electrode. 7756
- OXYGEN**  
The relation between oxygen consumption and bacterial infection in sawflies. 6580  
Oxygen balance in a stream receiving domestic and oil refinery effluents. 7655  
An inexpensive, versatile oxygen electrode. 7756
- OXYGEN ELECTRODES**  
An inexpensive, versatile oxygen electrode. 7756
- OXYTETRACYCLINE**  
Recovery from subacute grass sickness. 7520
- OXYTOCIN**  
Incomplete dilation of the ovine cervix. 7515
- OZONE**  
Response of plants to air pollutants. II. Effects of ozone concentration and leaf maturity on injury to *Nicotiana tabacum*. 6815  
Ozone injury to the foliage of *Pinus ponderosa*. 6819
- P-CHLOROPHENYL PHENYL SULFONE**  
Evaluation of chemicals for control of a spider mite complex on cherry and peach. 7003
- P-DIOXANEDITHIOL S,S-BIS (O,O-DIETHYL PHOSPHORODITHIOATE)**  
Studies on the metabolism and residues of P32-labeled Delnav in a Hereford steer. 7676
- PACIFIC NORTHWEST**  
The shallot aphid in the pacific northwest. 6452
- PANCREAS**  
The clinical approach to abdominal disorders of the dog. 7502
- PANONYCHUS**  
Possible virus disease in the European red mite. 6637  
Soil injection as a means of applying systemic acaricides to fruit trees. 6997  
Citrus red mites resistant to demeton and ovex and their response to Tedion and Kelthane. 7040
- PANTOMORUS**  
Evaluation of insecticides for control of the Fuller rose beetle on citrus in California. 7004
- PAPAVER**  
Control of downy mildew of opium poppy by root application of fungicides. 6788
- PARA-DIMETHYLAMINO BENZENEDIAZO SODIUM SULFONATE**  
Evidence for two different pathogens of peanut pod rot. 6754
- PARAFFIN OILS**  
The effect of oils on herbicidal activity of atrazine and linuron and of waxes and oils on the movement of EPTC in soil. 7657
- PARAFFIN WAX**  
The effect of oils on herbicidal activity of atrazine and linuron and of waxes and oils on the movement of EPTC in soil. 7657
- PARAFLOW**  
Control of pear borer and American plum borer in apple trees. 7024
- PARAINFLUENZA-3 VACCINES**  
Studies on an experimental vaccine for prophylaxis of shipping fever. 7314  
Studies on myxovirus parainfluenza-3 vaccine for prevention of shipping fever in cattle. 7395
- PARAINFLUENZA-3 VIRUS**  
The occurrence and distribution in the United Kingdom of antibodies to parainfluenza 3 and infectious bovine rhinotracheitis viruses in bovine sera. 7282

# SUBJECT INDEX

## PARAKEETS

Epizootiology of bovine myxovirus parainfluenza 3(sf-4) in Nebraska cattle as determined by antibody titers. 7398

## PARAKEETS

Infestation of a parakeet with *Knemidokoptes pilae*. 7616

## PARAQUAT

Darkness and the activity of diguat and paraquat on tomato, broad bean and sugar beet. 7119

Paraquat for selective control of range weeds. 7125

Dipyridylum residues in an aquatic environment. 7662

## PARASITES

Control of root maggots in swede turnips in Newfoundland with heptachlor and aldrin and the effect on parasites and overwintering pupae. 7039

## PARASITIC BRONCHITIS

Effect of diethylcarbamazine on parasitic bronchitis in calves. 7591

## PARASITIC INSECTS

Fleas (*Siphonaptera*) of Alabama and their host relationship. 6467

Fungus disease of adult parasite insects caused by *Torula nigra* (Marpmann). 6502

Two new species of parasites reared from *Stomopteryx nertea* nerteria (Meyrick) (Lepidoptera, Gelechiidae). 6615

White-pine shoot borer (*Eucosma gloriola* Heinrich). 7002

Diapause and secondary parasites nullify the effectiveness of rose-aphid parasites in riverside, california, 1957-1958. 7058

## PARASITISM

The effect of infestation with *Acarapis woodi* (Rennie) on the mortality of honey bees. 6447

Some relationships between *Perezia pyraustae* Paillot (Sporozoa, Nosematidae) and *Pyrausta nubilalis* (Hubner) (Lepidoptera, Pyralidae). 6459

North American species of *Aschersonia* parasitic on Aleyrodidae. 6464

Studies of eugregarina in insects. 6470

*Adelina sericethis* n. sp., a new coccidian parasite of scarabaeid larvae. 6474

Further records of parasites of *Nipaeococcus vastator* Maskell (Homoptera, Coccidae) from India. 6475

Laboratory studies on the rearing of *Aphidius smithi* (Hymenoptera, Braconidae) and its parasitism of *Acythosiphon pisum* (Homoptera, Aphididae). 6528

*Nosema leptocoridis* sp. n., microsporidian parasite of *Leptocoris trivittatus* (Say) (Hemiptera). 6576

Record of nematodes parasitising *Chilo zonellus* Swinhoe stem borer of maize. 6585

A nematode parasite of the alfalfa weevil (*Hypera postica* (Gyll.)). 6614

First records of hymenopterous parasites of yellow scale of cotton *Cerococcus hibisci* Green (Homoptera, Coccidae). 6629

*Tetrahyena* sp. parasitic in the larvae of *Chilo zonellus* (Swinhoe). 6636

Natural immunity of the bug *Triatoma infestans* to the protozoan *Trypanosoma rangeli*. 6666

Hostiparasite interaction in blackspot disease of roses caused by *Diplocarpon rosae* Wolf. 6886

Effects of various diurnal temperature profiles on host-parasite reaction of wheat varieties and *Puccinia striiformis*. 6903

An unidentified fungus parasitic on the seed-corn maggot. 6933

On *Helicotylenchus indicus* Siddiqi, 1963 (Nematoda, Hoplolaimidae), a phytoparasitic nematode in the Punjab. 7096

Materials discharged by plant-parasitic nematodes. 7103

A survey and review of parasitic diseases of wild and game birds in Great Britain. 7618

Morphological changes in a parasitic nematode due to acquired resistance of the host. 7624

The role of selected management systems in the control of sheep parasites. 7642

## PARASITOLOGY

Economic parasitology. 7635

## PARATHION

Laboratory evaluation of several insecticides against *Chrysops* larvae. 6549

Relationship between metabolism and differential toxicity in insects and mice of Diazinon, dimethoate, parathion, and acection. 6570

The influence of selection pressure on the development of resistance in populations of *Tetranychus telarius* (L.). 6656

Effects of heterogeneous distribution and codistillation on the results of tests with DDT against mosquito larvae. 6657

Selection response and genetics of parathion resistance in the Pacific spider mite, *Tetranychus pacificus*. 6667

Methylenedioxyphenyl derivatives as synergists for carbamate insecticides on susceptible, DDT-, and parathion-resistant house-flies. 6679

The beet armyworm, *Spodoptera exigua*, an economic pest of citrus in California. 6982

Laboratory studies on the toxicity of various insecticides to different stages of the oriental fruit moth. 6988

Evaluation of chemicals for control of a spider mite complex on cherry and peach. 7003

Experiments for the control of sap beetles in sweet corn grown for processing. 7014

The effect of copper compounds on control of citrus rust mite with zineb. 7022

Control of pear borer and American plum borer in apple trees. 7024

Control of the grape mealybug on apricots. 7030

The effect of *Lygus* bug control on the yield of lima beans. 7033

Plum curculio control experiments in 1955-58. 7062

Control of the grape leaf folder in California. 7064

Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California. 7065

Brief history of aphid control on potatoes in south Florida, 1946-59. 7079

Salt-marsh caterpillar control on cotton in Arizona. 7118

Effect of parathion on parasites of oriental fruit moth cocoons and *Trichogramma minutum* in peach orchards. 7565

House fly pupation under baseboards. 7575

Parathion and EPN residue studies on Concord grapes. 7683

## PARESIS

Pathological changes in the tarsi of cattle suffering from paresis spastica, examined by means of X-rays. 7318



## SUBJECT INDEX

		PEAS
PARKS		
Formation of hydrogen cyanide by the mycelial stage of a fairy ring fungus.	6795	Plum curculio control experiments in 1955-58. 7062
PAROMOMYCIN SULFATE		
Effects of paromomycin sulfate on blackhead in turkeys.	7159	Soil treatments in lieu of spraying for plum curculio control in peach orchards. 7063
PARSLEY		
Influence of soil temperature on a crown rot disease of parsley caused by <i>Phytophthora parasitica</i> .	6769	Effect of parathion on parasites of oriental fruit moth cocoons and <i>Trichogramma minutum</i> in peach orchards. 7565
PARSNIPS		
The effect of soil treatments of chlordane or heptachlor on the flavor of turnips, parsnips, and carrots.	7671	PEANUT BUTTER
PARTICLE SIZE DETERMINATION		Insecticidal baits for control of the imported fire ant, <i>Solenopsis saevissima richteri</i> . 7571
A probabilistic analysis of fungus control by foliar application of chemicals.	6726	PEANUT MEAL
PARTURITION		An outbreak of poisoning in store cattle attributed to Brazilian groundnut meal. 7273
Ineffectivity of furazolidine in ovine vibriosis.	7167	PEANUTS
Vitamin D3 and ovine ring womb	7257	Evidence for two different pathogens of peanut pod rot. 6754
PASTURELLA		
Studies on an experimental vaccine for prophylaxis of shipping fever.	7314	Variation in susceptibility to <i>Sclerotium rolfsii</i> among peanut varieties. 6755
PASTURELLA BACTERINS		
Respiratory disease in vaccinated feeder cattle.	7211	Some observations of peanut leaf rust and <i>Cercospora</i> leaf spots in Texas. 6762
Hog cholera Breaks influenced by bacterial infection.	7219	Varietal response in groundnut to <i>Sclerotium bataticola</i> . 6806
Effect of pasteurilla bacterin on mortality and pneumonia in lambs.	7339	Inoculation and rust development on peanuts grown in the greenhouse. 6811
PASTURELLOSIS		
The recovery of <i>Pasteurella multocida</i> from lyophilised cultures.	7265	Toxicity in groundnuts. 7156
PASTURES		
Formation of hydrogen cyanide by the mycelial stage of a fairy ring fungus.	6795	Groundnut toxicity. <i>Aspergillus flavus</i> toxin (aflatoxin) in animal products preliminary communication. 7225
PATHOGENICITY		
Pathogenicity, vitamin nutrition, and cultural characteristics of isolates of <i>Phytophthora parasitica</i> from carnation and other hosts in hawaii.	6768	Groundnut toxicity. 7264
Heterothallism in <i>Pyrenophora teres</i> .	6809	Groundnut toxicity <i>Aspergillus flavus</i> toxin (aflatoxin) in animal products. 7322
Relationship of genes conditioning pathogenicity of <i>Erysiphe graminis</i> f. sp. <i>hordei</i> on barley.	6828	Groundnut toxicity. 7323
Studies on the host range and pathogenicity of <i>Erysiphe polygoni</i> .	6924	Groundnut toxicity as the cause of exudative hepatitis (oedema disease) of guinea-pigs. 7455
Comparison of pathogenicity of various isolates of <i>Bordetella bronchiseptica</i> in young pigs.	7488	Factors other than groundnut in the production of aflatoxin. 7476
Observations on pathogenicity and immunogenicity of a cell-culture-modified foot-and-mouth disease virus.	7498	Factors other than groundnut relating to turkey X disease. 7477
PATHOLOGY		
Pathology of the Northern fur seal.	7392	Factors affecting invasion of grains and seeds by <i>Aspergillus flavus</i> and effects of the fungus on germination of the seeds. 7644
PEACHES		
Control of peach bacterial spot with <i>Xanthomonas pruni</i> bacteriophage.	6730	Effects of relative humidity and temperature on the degradation of peanut sugar and oil by <i>Aspergillus flavus</i> . 7714
Transmission of <i>Pseudomonas syringae</i> in peach trees by bud propagation.	6736	PEARLMILLET
Effects of 2,6-dichloro-4-nitroaniline on <i>Rhizopus</i> species and its comparison with other fungicides on control of <i>Rhizopus</i> rot of peaches.	6838	Sporangial germination of <i>Sclerospora graminicola</i> and inoculation of <i>Pennisetum glaucum</i> . 6882
Control of western X-disease virus in Utah orchards.	6951	Occurrence of <i>Eublemma silicula</i> Swinhoe as pest of bajra in Delhi. 7023
Laboratory studies on the toxicity of various insecticides to different stages of the oriental fruit moth.	6988	PEARS
Evaluation of commonly used insecticides for the control of peach curl aphid, <i>Anuraphis helichrysi</i> Kalt.	6996	Phytopathological notes. inducing infection of pear rootlets by <i>Phytophthora cactorum</i> in pot tests. 6810
Evaluation of chemicals for control of a spider mite complex on cherry and peach.	7003	Red leaf disorders of pear in California and their relation to pear decline. 6836
		PEAS
		Purification, morphology, and biochemical characterization of the Wisconsin pea streak virus. 6872
		Comparisons of pea enation mosaic virus isolates. 6878
		A new pea streak virus related to red clover vein mosaic virus (RCVMV). 6977
		The fate of phorate in soils. 7008
		Dissipation of malathion residues on tomato and pea. 7679

# SUBJECT INDEX

## PECTINASE

### PECTINASE

The macerating enzyme of *Rhizoctonia solani*. 7701

### PECTINOPHORA

A cytoplasmic polyhedrosis virus, *Smithiavirus pectinophorae* sp. n. of the pink bollworm, *pectinophora gossypiella* (Saunders). 6556

### PECTINOPHORA GOSSYPIELLA

Effects of nectariless cottons on populations of three lepidopterous insects. 7029

### PEKIN DUCKS

Muscle necrosis and amyloidosis in the White Pekin duck. 7220

### PELARGONIUM

Differentiation of viruses transmitted from *Pelargonium hortorum*. 6865

### PENICILLIN

Studies on the dietary requirement and interaction of magnesium with antibiotics in turkeys to 4 weeks of age. 7141

A new penicillin. 7261

Zinc bacitracin and chick growth. 7274

Microbiological studies on a new penicillin, BRL 1621. 7382

An outbreak of acute disease in Chester Zoo diagnosed as anthrax. 7385

A new penicillin. 7531

Staphylococcal infection in lambs a study of live and dead lambs from tick-infested farms in North-West Yorkshire and North-East Lancashire. 7543

Studies of a new penicillin, BRL 1921, for the treatment and control of staphylococcal mastitis in cows. 7556

### PENICILLIUM

Control of *Penicillium* decay of oranges with certain volatile aliphatic amines. 6741

Sym-dibromotetrachloroethane - a new fungistat for control of citrus fruit decay. 6742

Fungi attacking seeds in dry seed-beds. 6759

Orange stain, a storage disease of rice caused by *Penicillium puberulum*. 6895

### PENICILLIUM DIGITATUM

Biphenyl-resistant citrus green mold reported in Florida. 6914

### PENICILLIUM RUBRUM

On the fungistatic and fungicidal properties of an antibiotic produced by *Penicillium rubrum*. 6791

### PENTACHLORONITROBENZENE

Suppression of corn head smut by in-furrow applications of pentachloronitrobenzene. 6747

Evidence for two different pathogens of peanut pod rot. 6754

### PENTOBARBITAL

Metaldehyde poisoning in the dog. 7532

### PENTOBARBITAL SODIUM

Physiological and pharmacological factors which influence the incidence of acute pulmonary alterations following vagotomy in the domestic cock. 7136

A report on the dosage of pentobarbitone sodium required to induce anaesthesia in ferrets. 7440

### PEPPER (SPICE)

European corn borer control in peppers. 6990

### PEPTOCOCCUS

The effect of 2 hepta-5-methylbenzimidazole and hydrochloric acid on the growth of microflora found on poultry carcasses. 7652

### PERICONIA

Purification of the selective toxin of *Periconia circinata*. 7755

### PERIPLANETA

Relationship between metabolism and differential toxicity in insects and mice of Diazinon, dimethoate, parathion, and acethion. 6570

The effect of insecticides on transamination in the American cockroach. 6587

Action of DDT at an insect synapse. 6633

### PERIPLANETA AMERICANA

Evaluation of compounds of cadmium and related metals as reproduction inhibitors in insects. 6476

Relationship between metabolism and differential toxicity in insects and mice of Diazinon, dimethoate, parathion, and acethion. 6570

The biological evaluation of spray additives and solvents with *Blattella germanica* (Linn) and *Periplaneta americana* (Linn.). 6639

Studies of water conservation in cockroaches. 6653

### PERITONEUM

Peritoneal dialysis as an adjunct to *Leptospirosis* therapy in a dog. 7473

### PERITONITIS

A case of distension of the omasum. 7371

### PERONOSPORA ARBORESCENS

Control of downy mildew of opium poppy by root application of fungicides. 6788

### PERONOSPORA FARINOSA

Field experiments on sugar-beet downy mildew (*Peronospora farinosa*). 6717

### PERSIMMONS

Wilting of persimmon caused by *Cephalosporium diospyri*. 6966

### PERTHANE

The bean leaf skeletonizer, *Autoplusia egea*, and its control on bush snap beans in the everglades. 7006

Plum curculio control experiments in 1955-58. 7062

### PEST CONTROL

The search for veterinary insecticides. II. carbamates active against sheep blowfly. 7691

### PESTICIDE APPLICATION

A probabilistic analysis of fungus control by foliar application of chemicals. 6726

Suppression of corn head smut by in-furrow applications of pentachloronitrobenzene. 6747

Control of downy mildew of opium poppy by root application of fungicides. 6788

A study of factors influencing the effectiveness of diquat (101 -ethylene-202 -dipyridylum dibromide) for potato vine killing. 7127

The effect of oils on herbicidal activity of atrazine and linuron and of waxes and oils on the movement of EPTC in soil. 7657

### PESTICIDE RESIDUES

Science and education a new awareness. 7122

Pesticides and the soil fauna. I. effects of aldrin and DDT in an arable field. 7656

Pesticide residues in poultry samples, USDA study shows. 7659

Toxic chemicals. 7664

Toxic chemicals. 7685

Toxic chemicals. 7740



## SUBJECT INDEX

## PHYSIOLOGY

- PESTICIDES**  
 Testing of pesticides against cabbage aphid, *Brevicoryne brassicae* linn. 6622  
 Pesticides and animal poisoning. 7497  
 The safe use of toxic chemicals. 7660  
 Measuring the surface area of apples for expression of pesticide residues. 7666  
 Toxic chemicals. 7734  
 Toxic chemicals. 7735  
 Pesticide safety education. 7759  
 The safe use of modern pesticides. 2. 7760
- PETS**  
 Salmonellosis, a pet-implicated zoonosis. 7527
- PETUNIA**  
 Symptomless hosts of the potato spindle tuber virus (PSTV). \* 6837
- PHACIDIUM ABIETIS**  
 Pathogenicity of *Phacidium abietis*. 6911
- PHALTAN**  
 Effects of 2,6-dichloro-4-nitroaniline on *Rhizopus* species and its comparison with other fungicides on control of *Rhizopus* rot of peaches. 6838
- PHENACASPIIS**  
 Systemic insecticides for control of scales, leaf miners, and lace bugs. 7059
- PHENOCOCCUS**  
*Phenococcus solane* Ferris, a toxicogenic insect. 6993
- PHENOLASES**  
 The occurrence of polyphenoloxidase in the hemocytes of actively immunized larvae of the greater wax moth, *Galleria mellonella*. 6510
- PHENOLS**  
 Antifungal phenolic acids in apple fruits after infection with *Sclerotinia fructigena*. 6746  
 Diphenoxylate a useful drug in the symptomatic treatment of acute and chronic diarrhoea in domestic and wild animals. 7414  
 Plant polyphenols as antioxidants for ascorbic acid. 7707
- PHENOTHIAZINE**  
 Field trials comparing the anthelmintic effect of Ruelene (4-tert-butyl-2-chlorophenylmethyl methylphosphoramidate) with that of phenothiazine. 7601  
 The action of pure microbial phenothiazine on the infestations of *Nematodirus battus* in lambs. 7612  
 Efficacy of micronized phenothiazine against *Heterakis gallinae* in chickens. 7629  
 The role of selected management systems in the control of sheep parasites. 7642
- PHENOXYACETIC ACID COMPOUNDS**  
 Decomposition of 2,4-D and related phenoxyacetic acids by an *Arthrobacter* species. 7658
- PHENOXYBENZAMINE**  
 Physiological and pharmacological factors which influence the incidence of acute pulmonary alterations following vagotomy in the domestic cock. 7136
- PHOLADORIS**  
*Drosophilid* survey of India. III. the *Drosophilida* of Kashmir Valley. 6466
- PHOMA**  
 Behavior of *Phoma herbarum* var. *medicaginis* on resistant and susceptible species of *Medicago*. 6702
- PHORATE**  
 Insecticidal control of the Hessian fly. 6987  
 Soil injection as a means of applying systemic acaricides to fruit trees. 6997  
 The effect of phorate applied to seed on the growth, development and insects attacking grain sorghum. 7005  
 The fate of phorate in soils. 7008  
 The effect of seed treatments with phorate and other systemic insecticides on the germination of wheat. 7027  
 Observations on soybean insects in Maryland. 7051  
 Systemic insecticides for control of scales, leaf miners, and lace bugs. 7059  
 Biology and control of the apple seed chalcid in North Carolina. 7072  
 Control of the two-spotted spider mite on beans with systemic insecticides applied in the soil. 7076  
 The use of phorate to control aphids and the Hessian fly on winter wheat. 7078  
 Residues in established alfalfa treated with granulated phorate (Thimet) and their effect on cattle fed the hay. 7667
- PHOSPHAMIDON**  
 Effectiveness of insecticides against the European corn borer and green peach aphid on peppers. 7017  
 Systemic insecticides for control of scales, leaf miners, and lace bugs. 7059
- PHOSPHINE**  
 Germination of cereal, sorghum, and small legume seeds after fumigation with hydrogen phosphide. 7645
- PHOSPHORAMIDOTHIOIC ACID**  
 Control of the oriental rat flea with systemic insecticides fed to rats. 6542  
 Systemic insecticides for cattle grub control. 7574
- PHOSPHORUS**  
 Effect of organic phosphorous pesticides on certain phytopathogenic bacteria. 6743  
 Treatment of animals poisoned by organic phosphorus compounds. 7151  
 Toxicity of organic phosphorus insecticides to horses. 7694
- PHOTOSYNTHESIS**  
 Photosynthetic phosphorylation by chloroplasts isolated from rust-infected oats. 6972
- PHYLLOCOPTRUTA**  
 The effect of copper compounds on control of citrus rust mite with zineb. 7022
- PHYLLOTRETA**  
 Field evaluation of Sevin as an insecticide for pests of vegetables in New Jersey. 7010
- PHYMATOTRICHUM**  
 Recognition of *Phymatotrichum* root rot of cotton and alfalfa in an aerial survey. 6858
- PHYSALIS**  
 Symptomless hosts of the potato spindle tuber virus (PSTV). \* 6837
- PHYSALIS MINIMA**  
 An evaluation of *Solanum nigrum* and *Physalis minima* as snscpts of *Xanthomonas vesicatoria*. 6792
- PHYSIOLOGY**  
 The pathogenesis of diarrhea in the newborn calf, with special reference to physiologic functions and environmental conditions. 7436  
 Physiology of asexual reproduction in *Aphanomyces enteches*. 7743

# SUBJECT INDEX

## PHYTATES

### PHYTATES

Zinc availability in the chick as affected by phytate, calcium and ethylenediaminetetraacetate. 7139

### PHYTOACTIN

Absorption, toxicity, and bio-assay of high-potency fungicides in *Prunus domestica*. 6765

### PHYTOALEXIN

Resistance of soybeans to three *Phytophthora* species due to the production of a phytoalexin. 6783

### PHYTOPATHOLOGY

Report and abstracts of the 1963 annual meeting of the Potomac division of the American Phytopathological Society. 6685

Report and abstracts of the 1963 annual meeting of the Pacific Division of the American Phytopathological Society. 6689

Abstracts of papers accepted for presentation at the fifty-fifth annual meeting of the American Phytopathological Society, Amherst, Mass., August 26, 27, 28, 29, 1963. 6690

Symposium on requirements and interpretations of biometeorological observations. Invitational papers presented at the fifty-fourth annual meeting of the American Phytopathological Society, Corvallis, Oregon, August 26-29, 1962. 6691

Possible detrimental effect of *Pythium artotrogus* on the cultivated mushroom. 6748

Influence of soil temperature on a crown rot disease of parsley caused by *Phytophthora parasitica*. 6769

An inexpensive, versatile oxygen electrode. 7756

Dew, its significance and measurement in phytopathology. 7757

### PHYTOPHAGA

Insecticidal control of the Hessian fly. 6987

Chloroplast number in leaves of normal wheat plants and those infested with Hessian fly or treated with maleic hydrazide. 7052

### PHYTOPHTHORA

Pathogenicity, vitamin nutrition, and cultural characteristics of isolates of *Phytophthora parasitica* from carnation and other hosts in Hawaii. 6768

Influence of soil temperature on a crown rot disease of parsley caused by *Phytophthora parasitica*. 6769

Induced susceptibility in soybean plants genetically resistant to *Phytophthora sojae*. 6782

Resistance of soybeans to three *Phytophthora* species due to the production of a phytoalexin. 6783

Nature of resistance of soybeans to three *Phytophthora* species. 6784

Phytopathological notes. Inducing infection of pear rootlets by *Phytophthora cactorum* in pot tests. 6810

Potentilla species as hosts for *Phytophthora fragariae*. 6824

Spring black stem of alfalfa in relation to temperature, moisture, wounding, and nutrients and some observations on pathogen dissemination. 6866

*Phytophthora cinnamomi* root rot of Douglas-fir. 6875

Effect of fungicides on the respiration of three species of soil fungi. 6941

Influence of root exudates of cacao and other plants on spore development of *Phytophthora palmivora*. 6947

Inhibition of fungi by culture media previously exposed to light. 6954

Biological control of *Phytophthora* root rot of avocado with

alfalfa meal. 6978

Saprophytism and persistence in soil by *Phytophthora cinnamomi*. 6979

Oogonium germination in *Phytophthora infestans*. 7724

A slender-spored *Dactylella* parasitic on *Pythium* oospores. Drechsler, C. 7728

Release of ribonucleic and amino acids by *Phytophthora*. 7745

Effect of soil exchangeable hydrogen and calcium ratio and the resulting pH on infection of citrus fibrous roots by *Phytophthora parasitica*. 7747

### PHYTOPHTHORA DRECHSLERI

Genetics and cytology of *Phytophthora*. 6752

### PHYTOPHTHORA MEGASPERMA

*Phytophthora* root rot of alfalfa in Minnesota. 6751

### PHYTOPHTHORA PARASITICA NICOTIANAE

Calcium nutrition in relation to the black shank disease of tobacco. 6825

### PHYTOSTREPTIN

Absorption, toxicity, and bio-assay of high-potency fungicides in *Prunus domestica*. 6765

### PHYTOTOXICITY

The mechanism of the interaction between soil organic matter and herbicide toxicity and the influence of pH on herbicide phytotoxicity. 7698

### PICEA

*Fomes annosus*. 6705

Infection of spruce seedlings by *Cylindrocladium scoparium*. 6715

Pathogenicity of *Phacidium abietis*. 6911

Forest-insect surveys in the central Rocky Mountains. 7077

Aerial forest spraying against spruce budworm- A problem of mutual interest in Canada and the United States. 7117

### PICROTOXIN

Effect of *Iatrodictus mactans tredecimguttatus* venom on the crayfish stretch receptor neurone. 7692

### PIERIS

A microsporidian, *Thelohania* sp., in *Pieris rapae*. 6571

On the pathogenesis of simultaneous virus infections in insects. 6650

Breeding *Pieris brassicae* apparently free from granulosus virus. 6670

### PIERIS RAPAE

Bionomics and control of certain *Plusiinae* and studies of an associated nuclear polyhedrosis virus. 6992

### PIGEONS

A study of the life history of the pigeon feather mite, *Falculifer rostratus* (Buchholz), 1869, in vivo and in vitro. 6493

Methyridine in the control of intestinal capillariasis in birds. 7637

### PIGMENTS (PLANT)

Orange stain, a storage disease of rice caused by *Penicillium puberulum*. 6895

### PIGWEEED

ISU veterinarians suspect two weeds as cause of seasonal swine disease. 7157

### PINEAPPLES

*Phenococcus solane* Ferris, a toxicogenic insect. 6993

A study of mealybug populations (*Dysmicoccus brevipes* (Ck1.)) in an ant-free field. 6994



# SUBJECT INDEX

## PLANT DISEASE RESISTANCE

- PINUS**  
 Black root rot of pine. 6771  
 Ozone injury to the foliage of *Pinus ponderosa*. 6819  
 Pathogenicity of *Phacidium abietis*. 6911  
 Influence of timing and insect biology on the effectiveness of insecticides applied for control of European pine shoot moth, *Rhyacionia buoliana*. 6991  
 Field testing of insecticides for control of the Nantucket pine moth, *Rhyacionia frustrana*, and the European pine shoot moth, *R. buoliana*. 7001  
 White-pine shoot borer (*Eucosma gloriola* Heinrich). 7002  
 The effects of DDT and malathion upon forest soil microarthropods. 7015  
 Natural factors control the pine tortoise scale in the Northeast. 7034  
 Forest-insect surveys in the central Rocky Mountains. 7077  
 The biology of the pine webworm, *Tetralopha robustella*, in Wisconsin. 7116
- PINUS BANKSIANA**  
 The influence of seasonal DDT applications upon arthropod populations in jack pine stands. 7056
- PINUS PONDEROSA**  
 Control of the charcoal root disease of white fir by fall soil fumigation. 6913
- PINUS TAEDA**  
 Toxicity of BHC to loblolly pine seedlings. 7068
- PIPER NIGRUM**  
 Inheritance of resistance in pepper to bacterial spot. 6725  
 A soil-borne virus disease of pepper in California. 6852
- PIPERAZINE**  
 Thienum and piperazine combined, in the treatment of hookworm and roundworm infestation in the dog. 7599
- PIPERONYL BUTOXIDE**  
 The penetration of piperonyl butoxide as a synergist and as an antagonist in *Musca domestica* L. 6655  
 Comparative value of some synthetic compounds as synergists with barthrin in house fly sprays. 6680  
 Screening tests with synthetic compounds as synergists for house fly sprays. 6682
- PIROPLASMOSIS**  
 Ticks in the United States serve as vectors of disease. 7187  
 The preservation of *Babesia bigemina*, *Anaplasma centrale* and *A. marginale* by deep-freezing. 7239  
 Current disease problems of horses. 7393  
 Tick-borne fever in East Africa. 7416  
 Transmission of equine piroplasmosis by *Dermacentor nitens* Neumann. 7483  
 Tick-borne fever as a cause of abortion and stillbirths in cattle. 7557  
 The application of blood transfusion in cattle with particular reference to redwater (*Babesia bovis*). 7623
- PITH**  
 Relationship of water content and living cells to spread of *Diplodia zeae* in corn stalks. 6849
- PLANT ANATOMY**  
 Anatomical aspects of resistance in sweetpotato to *Fusarium* wilt. 6956  
 Comparative anatomical study of leaves of young and mature banana plants in relation to the morphology of *Cercospora* musae lesions. 7720
- PLANT BUDDING**  
 Transmission of *Pseudomonas syringae* in peach trees by bud propagation. 6736
- PLANT COMPOSITION**  
 The influence of selected nematode species and number of consecutive plantings of corn and sorghum on forage production, soil, and water use efficiency. 7087  
 An investigation of the toxic plant - rayless goldenrod (*Aplopappus heterophyllus*). 7703
- PLANT DISEASE CONTROL**  
 Transmission of *Pseudomonas syringae* in peach trees by bud propagation. 6736  
 Control of downy mildew of opium poppy by root application of fungicides. 6788  
 Hydrothermal and hygrothermal inactivation of *Monilinia fructicola* and *Rhizopus stolonifer* spores. 6912  
 Control of the charcoal root disease of white fir by fall soil fumigation. 6913
- PLANT DISEASE RESISTANCE**  
 Varietal resistance to clover rot in white clover. 6694  
 Sources of resistance to halo blight in *Phaseolus vulgaris*. 6698  
 Behavior of *Phoma herbarum* var. *medicaginis* on resistant and susceptible species of medicago. 6702  
 Inheritance of stem rust resistance in two wheat varieties, Marquis and Kota. 6706  
 Susceptibility of *Gossypium arboreum* and *Gossypium hirsutum* to seedling anthracnose. 6710  
 Inheritance of resistance in pepper to bacterial spot. 6725  
 Effects of *Meloidogyne* spp. and *Tylenchorhynchus claytoni* on pea wilt incited by *Fusarium oxysporium* f. *pisi* race 1. 6732  
 Influence of temperature on rate of growth of five fungus pathogens of turfgrass and on rate of disease spread. 6745  
 Variation in susceptibility to *Sclerotium rolfsii* among peanut varieties. 6755  
 Resistance to powdery mildew in grapevines related to osmotic value and associated factors. 6756  
 Monogenic chlorotic lesion resistance to *Helminthosporium turcicum* in corn seedlings. 6767  
 Studies on the nature of barley resistance to *Helminthosporium teres*. 6780  
 Induced susceptibility in soybean plants genetically resistant to *Phytophthora sojae*. 6782  
 Resistance of soybeans to three *Phytophthora* species due to the production of a phytoalexin. 6783  
 Nature of resistance of soybeans to three *Phytophthora* species. 6784  
 An evaluation of *Solanum nigrum* and *Physalis minima* as susceptibles of *Xanthomonas vesicatoria*. 6792  
 The resistance of *Zea mays* to *Puccinia graminis*. 6794  
 Metabolism of resistant and susceptible cucumber varieties infected with cucumber mosaic virus. 6813  
 Calcium nutrition in relation to the black shank disease of tobacco. 6825  
 Effect of rootstock on the incidence of impietratura-diseased grapefruit fruits. 6846  
 Relationship of the genes conditioning resistance to *Erysiphe graminis* f. sp. *hordei* in some varieties of barley

# SUBJECT INDEX

## PLANT DISEASE TRANSMISSION

used to differentiate races of this pathogen.	6856
Breakdown of mo mo resistance in <i>Pisum sativum</i> by thermal selection within certain strains of the bean yellow mosaic virus (BV2).	6859
Comparisons of pea enation mosaic virus isolates.	6878
Resistance in <i>Matthiola incana</i> to the turnip mosaic virus.	6884
Host-parasite interaction in blackspot disease of roses caused by <i>Diplocarpon rosae</i> Wolf.	6886
Common antigens in <i>Xanthomonas malvacearum</i> and <i>Gossypium hirsutum</i> and their possible relationship to host specificity and disease resistance.	6891
Factors affecting resistance of wheat to scab caused by <i>Gibberella zeae</i> .	6893
A virus infecting maize in South Dakota.	6927
Screening sorghum varieties for resistance to the covered kernel smut fungus in Iraq.	6936
Anatomical aspects of resistance in sweetpotato to <i>Fusarium wilt</i> .	6956
Green-seeded downy mildew-resistant Fordhook lima beans.	6958
Nature and inheritance of resistance to <i>Albugo candida</i> in radish.	6965
A biotype of the spotted alfalfa aphid on alfalfa.	7046
The histological relationship of resistance to the citrus nematode in certain citrus rootstocks.	7114
PLANT DISEASE TRANSMISSION	
The shallot aphid in the pacific northwest.	6452
Transmission of <i>Pseudomonas syringae</i> in peach trees by bud propagation.	6736
A virus-like particle in Avon and Fundy potatoes.	6739
Influence of temperature on rate of growth of five fungus pathogens of turfgrass and on rate of disease spread.	6745
Approach graft transmission of Tulare apple mosaic virus between apple and <i>Gomphrena globosa</i> .	6753
Reappraisal of transmission of tobacco mosaic virus by insects.	6845
Differentiation of viruses transmitted from <i>Pelargonium hortorum</i> .	6865
Interaction of the soybean mosaic and bean pod mottle viruses infecting soybeans.	6873
Epidemiology of glume blotch of wheat.	6888
Transmission of a virus disease of mushrooms by infected spores.	6890
Effect of age of vector and of abdomen punctures on virus transmission.	6910
A mosaic virus transmitted by beetles and a grasshopper.	6926
A virus infecting maize in South Dakota.	6927
Transmission of the stubborn and psorosis A viruses of citrus to an herbaceous host.	6928
Rough fruit of sweet cherry.	6950
Dodder transmission of citrange stunt virus, a virus associated with tatter leaf of citrus.	6952
The infectious nature of pollen from certain virus-infected stone fruit trees.	6963
Mechanical transmission of a latent lemon virus.	6976

Transmission of bean mosaic virus in relation to length of probes by aphids allowed either one or several acquisition probes.	6980
Prolonging the motility and virus-transmitting ability of <i>Olpidium zoospores</i> with chemicals.	7726
PLANT DISEASES	
Report and abstracts of the 1963 annual meeting of the Potomac division of the American Phytopathological Society.	6685
Report and abstracts of the 1963 annual meeting of the Pacific Division of the American Phytopathological Society.	6689
Growth and survival of the pathogen causing russet scab on potatoes.	6709
A visit to M. W. Beijerinck at his home laboratory in december, 1925.	6763
Factors affecting the pathogenesis of <i>Pythium</i> species on cotton ( <i>Gossypium hirsutum</i> L) seedlings.	6920
New record of the occurrence of mango shoot-gall disease in the Upper Indo-Gangetic Plain.	6921
PLANT DORMANCY	
Cold-induced dormancy and its reversal in uredospores of <i>Puccinia graminis tritici</i> .	6713
PLANT EXTRACTS	
Plant extracts, residues, and soil minerals in relation to competition of quackgrass ( <i>Agropyron repens</i> ) with oats and alfalfa.	7128
PLANT GALLS	
Pathological histology of tumors induced in oleander by <i>Pseudomonas savastanoi</i> .	6967
Biological studies of a new species of <i>Anguina</i> (Nematoda: Tylenchidae) parasitic on <i>Plantago aristata</i> Michx.	7115
PLANT GENETICS	
Heterothallism in <i>Pyrenophora teres</i> .	6809
PLANT GRAFTING	
Approach graft transmission of Tulare apple mosaic virus between apple and <i>Gomphrena globosa</i> .	6753
Studies on a virus causing stem grooving and graft-union abnormalities in Virginia Crab apple.	6843
PLANT GROWTH INHIBITORS	
BHC translocation from treated soil and the effect on growth of red clover.	6686
Studies on the nature of barley resistance to <i>Helminthosporium teres</i> .	6780
The effect of phorate applied to seed on the growth, development and insects attacking grain sorghum.	7005
DDT deposits on grapes as affected by growth and weathering.	7682
Isolation and characterization of a germination inhibitor from sugar beet fruit.	7721
Inhibition of enzymes by the anthocyanin malvidin-3-monoglucoside.	7730
PLANT HISTOLOGY	
Anatomical aspects of resistance in sweetpotato to <i>Fusarium wilt</i> .	6956
PLANT HOSTS	
Variation within and among species of <i>Meloidogyne</i> .	6885
PLANT INJURIES	
Infecting seven-day-old alfalfa seedlings with wilt bacteria through wounded Cotyledons.	6789
Spotted alfalfa aphid resistance in mature growth of alfalfa varieties.	7019
Sampling alfalfa seed for clover seed chalcid damage.	7067



# SUBJECT INDEX

## PLANT TRANSLOCATION

- Paraquat for selective control of range weeds. 7125
- PLANT INTRODUCTION**  
Plant introduction sour cherry selections - probable sources of brown rot resistance. 6823
- PLANT METABOLISM**  
Observations on the utilization of the hexose monophosphate pathway in nematode-infected roots of tomato. 7088  
The mode of action of diphenamid (N, N-dimethyl 2, 2-di-phenylacetamide) in plants. 7126  
Physiological and metabolic changes induced by lethal concentrations of 2,4-D in the cocklebur (*Xanthium* spp.). 7705  
Effects of relative humidity and temperature on the degradation of peanut sugar and oil by *Aspergillus flavus*. 7714  
Metabolism of methylcarbamate insecticide chemicals in plants. 7717
- PLANT MORPHOLOGY**  
Heterothallism in *Pyrenophora teres*. 6809  
Comparative anatomical study of leaves of young and mature banana plants in relation to the morphology of *Cercospora musae* lesions. 7720
- PLANT NEMATODE RESISTANCE**  
Sweetpotato varietal reaction to species and races of root-knot nematodes. 7089  
Evaluation of several techniques for screening alfalfa for resistance to *Ditylenchus dipsaci*. 7090  
The population genetics of the potato cyst-nematode, *Heterodera rostochiensis*, mathematical models to stimulate the effects of growing eelworm-resistant potatoes bred from *Solanum tuberosum* ssp. *andigena*. 7100
- PLANT NEMATODES**  
The influence of selected nematode species and number of consecutive plantings of corn and sorghum on forage production, soil, and water use efficiency. 7087  
Observations on the utilization of the hexose monophosphate pathway in nematode-infected roots of tomato. 7088  
*Helicotylenchus thornei* n sp (Nematoda, Hoplolaiminae) from a tomato plant field in Ludhiana, Punjab. 7091  
On two plant parasitic nematodes from a cauliflower field in the Punjab. 7092  
*Criconea laterale* Khan and Siddiqi, 1963 (Nematoda, Criconematidae), a parasite of citrus plant in the Punjab. 7093  
On a nematode species of the genus *Hoplolaimus* Daday, 1905, from a citrus plant in the Punjab. 7094  
Studies on two plant nematode species of the genus *Xiphinema* Cobb, 1913. 7095  
On *Helicotylenchus indicus* Siddiqi, 1963 (Nematoda, Hoplolaimidae), a phytoparasitic nematode in the Punjab. 7096  
On *Longidorus brevicaudatus* (Schuurmans Stekhoven, 1951) Thorne, 1961, a nematode parasite of citrus plants in the Punjab. 7097  
An attempt to extend the longevity of the burrowing nematode, *Radopholus similis*, with citrus root exudate. 7098  
The effect of *Criconeoides curvatum* and *Pratylenchus penetrans* on woody ornamentals. 7099  
The population genetics of the potato cyst-nematode, *Heterodera rostochiensis*, mathematical models to stimulate the effects of growing eelworm-resistant potatoes bred from *Solanum tuberosum* ssp. *andigena*. 7100  
Population dynamics and fumigation studies of certain nematodes associated with roots of wheat in Nebraska. 7101  
Observations on periodicity of hatching of eggs of the potato cyst-nematode, *Heterodera rostochiensis* Woll. 7110
- Effect of root extract of *Asparagus racemosus* and *Tagetes erecta* on hatching of eggs of *Meloidogyne javanica* and *Meloidogyne arenaria*. 7113  
Biological studies of a new species of *Anguina* (Nematoda: Tylenchidae) parasitic on *Plantago aristata* Michx. 7115
- PLANT NUTRITION**  
Mechanism of soil fungistasis. 6787  
Factors affecting the pathogenesis of *Pythium* species on cotton (*Gossypium hirsutum* L) seedlings. 6920
- PLANT NUTRITIONAL DEFICIENCIES**  
*Fusarium* wilt (race2) of tomato: effect of lime and micro-nutrient soil amendments on disease development. 6775  
Calcium nutrition in relation to the black shank disease of tobacco. 6825
- PLANT PEST RESISTANCE**  
Studies on the host preference of the onion thrips, *Thrips tabaci* Lindeman to the varieties of onion. 7073
- PLANT PHYSIOLOGY**  
Influence of temperature on rate of growth of five fungus pathogens of turfgrass and on rate of disease spread. 6745  
Effect of SMDC on germination, plant growth, and *fusarium* wilt incidence of cumin (*Cuminum cyminum*). 6805  
Physiology of *Rhizopus* infection on carrot. 6814  
Effects of some cytokinins on tobacco and their relation to tobacco mosaic virus infection. 6915  
Physiological and metabolic changes induced by lethal concentrations of 2,4-D in the cocklebur (*Xanthium* spp.). 7705
- PLANT REGULATORS**  
The effect of growth substances on *Verticillium* wilt of tomato plants. 6909  
Spotted alfalfa aphid resistance in mature growth of alfalfa varieties. 7019  
Interaction of growth regulators in the senescence of nasturtium leaf disks. 7702
- PLANT REPRODUCTION**  
Heterothallism in *Pyrenophora teres*. 6809
- PLANT RESIDUES**  
Relation of decomposing plant residues to root growth of alfalfa. 6840  
Plant extracts, residues, and soil minerals in relation to competition of quackgrass (*Agropyron repens*) with oats and alfalfa. 7128  
Influence of oat and alfalfa residues on soil respiration, fungistasis, and survival of *Verticillium albo-atrum*. 7723
- PLANT SENESENCE**  
Factors affecting the pathogenesis of *Pythium* species on cotton (*Gossypium hirsutum* L) seedlings. 6920  
Interaction of growth regulators in the senescence of nasturtium leaf disks. 7702
- PLANT TEMPERATURE**  
Influence of temperature on rate of growth of five fungus pathogens of turfgrass and on rate of disease spread. 6745  
Breakdown of moth resistance in *Pisum sativum* by thermal selection within certain strains of the bean yellow mosaic virus (BV2). 6859
- PLANT TRANSLOCATION**  
Translocation of C14-labeled compounds in cotton and oaks. 7708

# SUBJECT INDEX

## PLANTAGO ARISTATA

### PLANTAGO ARISTATA

Biological studies of a new species of Anguina (Nematoda0 Tylenchidae) parasitic on Plantago aristata Michx. 7115

### PLANTING

The influence of selected nematode species and number of consecutive plantings of corn and sorghum on forage production, soil, and water use efficiency. 7087

Influence of tillage, row spacing, and atrazine on sorghum and weed yields from nonirrigated sorghum across Nebraska. 7120

### PLANTING DATE

Inter-relationship between whitefly (Bemisia tabaci Gien) population and the incidence of leaf curl in bidi tobacco (nicotiana tabacum L) in relation to different planting dates. 7044

### PLANTS

Water tensions in plants, an entomological approach. 7037

Plant polyphenols as antioxidants for ascorbic acid. 7707

### PLASMODIOPHORA

A new race of Plasmodiophora brassicae affecting badger shipper cabbage. 6898

### PLASMODIUM

Metastatic calcification induced by hytakerol in chickens infected with Plasmodium gallinaceum. 7427

### PLATYNOSOMUM

Lesions associated with liver fluke infection in a cat. 7587

### PLEUROPNEMONIA

The effect of Tylosin against experimental and natural infection with Mycoplasma in goats. 7294

### PLEUROPNEMONIA-LIKE ORGANISMS

Carbomycin for pleuropneumonia-like organism infection. 7267

Standardized infections for laboratory evaluation of compounds against a chronic respiratory disease complex in chickens. 7315

Identification of Mycoplasma gallisepticum in lesion tissue by immunofluorescence. 7445

### PLUMS

Studies on the passage of Prunus ringspot virus complex through plum seed. 6942

Effect of parathion on parasites of oriental fruit moth cocoons and Trichogramma minutum in peach orchards. 7565

### PLUSIINAE

Bionomics and control of certain Plusiinae and studies of an associated nuclear polyhedrosis virus. 6992

### PNEUMONYCOSIS

Pulmonary aspergillosis in a cow. 7435

### PNEUMONIA

Common problems in the pig. 7144

Pneumonia in calves caused by parainfluenza virus type 3. 7246

Effect of pasteurella bacterin on mortality and pneumonia in lambs. 7339

### POD ROT (PEANUTS)

Evidence for two different pathogens of peanut pod rot. 6754

### POECILO CERUS PICTUS

Histological studies on the deutocerebrum of Poeciloceris pictus F (Orthoptera) and Mantis religiosa L (Dictyoptera). 6625

### POINTER DOGS

Cockers and labradors more resistant to distemper. 7197

### POISONING

Treatment of animals poisoned by organic phosphorus compounds. 7151

Antidote for tannic acid poisoning in rabbits. 7191

Arsenical poisoning of race horses. 7252

Metaldehyde poisoning. 7254

Groundnut toxicity. 7264

An outbreak of poisoning in store cattle attributed to Brazilian groundnut meal. 7273

Arsenical poisoning of racehorses. 7279

Basic slag toxicity in cattle and sheep. 7280

Bracken poisoning of farm animals. 7300

Acorn poisoning in a cow and a sheep. 7308

Cypress poisoning. 7328

Aminophylline poisoning in dogs. 7350

Suspected synthetic oestrogen poisoning in mink. 7369

Toxicity of some hydrazine tranquillisers to dogs. 7446

Metaldehyde poisoning. 7449

Groundnut toxicity as the cause of exudative hepatitis (oedema disease) of guinea-pigs. 7455

Chronic copper poisoning in lambs. 7487

Pesticides and animal poisoning. 7497

Synthetic oestrogen poisoning. 7500

Arsenical poisoning of racehorses. 7523

The incidence of lead poisoning in calves in Northern Ireland. 7529

Metaldehyde poisoning in the dog. 7532

Sulphur poisoning in ewes. 7547

Metaldehyde poisoning. 7549

Evidence for a difference in toxicity between common and hairy vetch seeds for chicks. 7687

Control of thar (Hemitragus jemlahicus), evaluation of a poisoning technique. 7689

Toxic chemicals. 7740

The safe use of modern pesticides. 2. 7760

### POISONOUS FUNGI

Factors other than groundnut relating to turkey X disease. 7477

### POISONOUS PLANTS

Plant extracts, residues, and soil minerals in relation to competition of quackgrass (Agropyron repens) with oats and alfalfa. 7128

An investigation of the toxic plant - rayless goldenrod (Aplopappus heterophyllus). 7703

### POISONS

Antidote for tannic acid poisoning in rabbits. 7208

### POLIOMYELITIS

First poliomyelitis epizootic in large primates under study. 7178

### POLLEN

The infectious nature of pollen from certain virus-infected stone fruit trees. 6963

### POLLINATION

Distance from the apiary as a factor in alfalfa pollination. 6461

Pollination of red clover in Minnesota. 6611



# SUBJECT INDEX

## POLYHEDROSES

Further tests on the use of a polyhedrosis virus in the control of the cotton leafworm *Prodenia litura*, Fabricius. 6445

Mode of multiplication of silkworm nuclear polyhedrosis virus II. Multiplication of the virus in the early period of the LD50-- time curve. 6478

The potential role of a feeding stimulant used in combination with the nuclear polyhedrosis virus of *Heliothis*. 6479

Protection of a susceptible insect host against a nuclear polyhedrosis virus by ether extracts from insect larvae. 6488

On the structure of cytoplasmic polyhedra of some lepidoptera. 6489

Purification of insect virus inclusion bodies with a fluorocarbon. 6490

Polyhedrosis and granulosis viruses causing single and double infections in the spruce budworm, *Choristoneura fumiferana* Clemens. 6492

Mortality of the honey bee, *Apis mellifera*, in colonies treated with certain biological insecticides. 6508

Pathology of a nuclear polyhedrosis virus of the cabbage looper, *Trichoplusia ni* (Hubner). 6522

Content of nucleic acid in intact nuclear polyhedral bodies isolated from virus-infected beet armyworms *Spodoptera exigua* (Lepidoptera Noctuidae). 6526

A modified azan staining technique for inclusion body viruses. 6540

A new nuclear polyhedrosis of the cabbage looper, *Trichoplusia ni*. 6544

Exposure of white mice and guinea pigs to the nuclear polyhedrosis virus of the cabbage looper, *Trichoplusia ni*. 6545

The isolation of a polyhedrosis virus from a grasshopper. 6547

Further studies on the isolation and crystallization of insect cytoplasmic viruses. 6548

Serological studies of the cytoplasmic- and nuclear polyhedrosis viruses of the silkworm, *Bombyx mori*. 6552

Studies of two strains of cytoplasmic-polyhedrosis virus. 6553

Effects of age on mortality of *Heliothis zea* and *Heliothis virescens* larvae exposed to a nuclear polyhedrosis virus. 6555

A cytoplasmic polyhedrosis virus, *Smithiavirus pectinophorae* sp. n. of the pink bollworm, *pectinophora gossypiella* (Saunders). 6556

The effects of chemical insecticides and insecticidal adjuvants of a *Heliothis* nuclear polyhedrosis virus. 6557

Effects of temperature on mortality of *Heliothis zea* larvae exposed to sublethal doses of a nuclear polyhedrosis virus. 6558

The relation of pH to the activity of inclusion bodies of a *Heliothis* nuclear polyhedrosis. 6559

Studies on lipids in the hemolymph of the silkworm, *Bombyx mori*, during the course of nucleopolyhedrosis. 6567

A feeding stimulant to increase effectiveness of, and a field test with, a nuclear polyhedrosis virus of *Heliothis*. 6597

RNA changes in insect tissue with a nuclear-polyhedrosis virus. 6598

A cytoplasmic polyhedrosis of the alfalfa caterpillar. 6638

## PORTHETRIA

An infection of the desert locust, *Schistocerca gregaria* Forskal with a nonchromogenic strain of *Serratia marcescens* Bizio. 6642

Descriptions and characteristics of a nuclear polyhedrosis virus and a granulosis virus of the armyworm, *Pseudaletia unipuncta* (Haworth) (Lepidoptera, Noctuidae). 6646

Synergism between two viruses of the armyworm, *Pseudaletia unipuncta* (Haworth) (Lepidoptera, Noctuidae). 6647

Thermal inhibition of certain polyhedrosis virus diseases. 6649

On the pathogenesis of simultaneous virus infections in insects. 6650

Light microscopy of the virogenic stromata of cytopolyhedroses. 6663

The chromosomes and virogenic stroma in the nuclearpolyhedrosis of *Tipula poludosa*. 6664

Polyhedroses in neuropterous insects. 6684

Bionomics and control of certain *Plusiinae* and studies of an associated nuclear polyhedrosis virus. 6992

## POLYPLOIDY

The haploid behavior of *Urocystis colchici* teliospores. 7725

## POLYSEROSTITIS

Polyserositis-arthritis complex in swine. 7182

## POLYSOPHONIA

New notes on the structure of *Pterosiphonia* (Rhododelaceae, Ceramiales), and their systematic relationship with *Polysiphonia*. 6481

## POODLE DOGS

Hereditary retinal atrophy in the poodle. 7238

Surgical treatment of chronic otitis in a Poodle. 7373

## POPILLIA

Oxygen concentration in larval hemolymph of the Japanese beetle, *Popillia japonica*, infected with *Bacillus popilliae*. 6659

Effect of lime applications to soil on Japanese beetle larval populations. 7048

## POPULATION

Influence of host and nonhost plants upon populations of *Thielaviopsis basicola* in soil. 6704

Variation within and among species of *Meloidogyne*. 6885

The population genetics of the potato cyst-nematode, *Heterodera rostochiensis*, mathematical models to stimulate the effects of growing eelworm-resistant potatoes bred from *Solanum tuberosum* ssp. *andigena*. 7100

Population dynamics and fumigation studies of certain nematodes associated with roots of wheat in Nebraska. 7101

## POPULATION STATISTICS

The shallot aphid in the pacific northwest. 6452

Long-range aerial transport of the harlequin bug and the greenbug into Minnesota. 6456

Estimating immature populations of rice weevils in wheat by using subsamples. 6460

Greenbug dispersal and distribution of barley yellow dwarf virus in Wisconsin. 6812

## POPULUS

The utilization of ligno-cellulose by common mold fungi. 6816

## PORIA

*Poria weirii* root rot. 6722

## PORTHETRIA

Laboratory method for screening compounds as attractants to gypsy moth males. 6494

# SUBJECT INDEX

- POTATOES
- Residues of Sevin and 1-naphthol on forage from aerial applications of Sevin in oil. 7020 7659
- POTATOES
- Growth and survival of the pathogen causing russet scab on potatoes. 6709 7681
- A virus-like particle in Avon and Fundy potatoes. 6739
- A simple method of measuring rate of plant virus movement from inoculated tobacco leaves to stem tips. 6750
- Instability of symptoms of potato leaf roll virus. 6800
- Potato yellow vein virus in Ecuador. 6826
- Symptomless hosts of the potato spindle tuber virus (PSTV). \* 6837
- Histochemical studies on the dehydrogenases of potato affected by late blight. 6949
- Streptomycin resistance -- a technique for the direct assay of potato scab organisms from soil. 6953
- The fate of phorate in soils. 7008
- Effectiveness of insecticides against the European corn borer and green peach aphid on peppers. 7017
- Laboratory studies of three-lined potato beetle and control with various insecticides. 7025
- Response of different strains of the green peach aphid to malathion. 7060
- Brief history of aphid control on potatoes in south Florida, 1946-59. 7079
- The population genetics of the potato cyst-nematode, *Heterodera rostochiensis*, mathematical models to stimulate the effects of growing eelworm-resistant potatoes bred from *Solanum tuberosum* ssp. *andigena*. 7100
- Observations on periodicity of hatching of eggs of the potato cyst-nematode, *Heterodera rostochiensis* Woll. 7110
- A study of factors influencing the effectiveness of diquat (101-ethylene-202-dipyridylum dibromide) for potato vine killing. 7127
- POTENTILLA
- Potentilla species as hosts for *Phytophthora fragariae*. 6824
- POULTRY
- Report of the committee on fowl pest, 1962. 7149
- Carbomycin for pleuropneumonia-like organism infection. 7267
- A mixture of diaveridine and sulfaquinoxaline as a coccidiostat for poultry. I. Preliminary studies on efficiency against *Eimeria tenella* and *E. necatrix* infections, and on toxicity in poultry. 7270
- Observations on an avian strain of *Pasteurella haemolytica*. 7332
- A haemolytic cocco-bacillus recovered from poultry. 7340
- Factors influencing the survival of coliforms in the dust of deep litter houses. 7344
- A haemolytic coccobacillus recovered from poultry. 7345
- Infectious bronchitis virus types--Incidence in the United States. 7356
- Infectious bronchitis virus- tissue distribution. 7359
- Pathologic changes associated with feeding various levels of *Crotalaria spectabilis* seed to poultry. 7508
- Haemophilus gallinarum* - Intraflock spread. 7559
- Laboratory and field tests against mites and lice attacking poultry. 7562
- Pesticide residues in poultry samples, USDA study shows.
- Analysis of egg yolk and poultry tissues for chlorinated insecticide residues. 7681
- POULTRY HOUSES
- Factors influencing the survival of coliforms in the dust of deep litter houses. 7344
- POULTRY MEAT
- The effect of 2 hepta-5-methylbenzimidazole and hydrochloric acid on the growth of microflora found on poultry carcasses. 7652
- POULTS
- An outbreak of *Salmonella pullorum* infection in turkey poults. 7364
- POWDERY MILDEW (CUCUMBERS)
- Predisposition to powdery mildew. 6975
- POWDERY MILDEW (GRAPES)
- Resistance to powdery mildew in grapevines related to osmotic value and associated factors. 6756
- PRATYLENCHUS
- Influence of *Pratylenchus penetrans* alone and in combination with *Verticillium albo-atrum* on growth of peppermint. 6707
- The fungous flora of nonsuberized roots of poorly growing cherry trees. 6749
- Reproduction of *Pratylenchus penetrans* on corn roots cultured on various nutrient media. 6896
- Lesion nematode injury to carrot. 7108
- PRATYLENCHUS PENETRANS
- The effect of *Criconeoides curvatum* and *Pratylenchus penetrans* on woody ornamentals. 7099
- PREDACEOUS INSECTS
- The house cricket, *Acheta domesticus*, and the house fly, *Musca domestica*, as a model predator-prey system. 6613
- PREDATORY ANIMALS
- Pyometra in the lioness (*Panthera leo*). 7408
- PREGNANCY
- Injected saponins as abortifacients. 7203
- A practitioner's mastitis control program. 7338
- The prenatal migration of *Toxocara canis* larvae and their relationship to infection in pups. 7397
- PRICES
- Antibiotics in milk--Postponement of M.B.B. reduced price scheme. 7154
- PRIMATES
- First poliomyelitis epizootic in large primates under study. 7178
- PRISTIPHORA
- Thelohania pristiphorae* sp. n., a microsporidian parasite of the larch sawfly, *Pristiphora erichsonii* (Hymenoptera Tenthredinidae). 6632
- PROCAINE
- Procaine as an antibiotic and antifungal agent. 7189
- PRODENIA
- Further tests on the use of a polyhedrosis virus in the control of the cotton leafworm *Prodenia litura*, Fabricius. 6445
- PROMETONE
- The mechanism of the interaction between soil organic matter and herbicide toxicity and the influence of pH on herbicide phytotoxicity. 7698
- PROPIONIBACTERIUM FREUDENREICHII
- Antiviral activity of higher plants and propionin on lymphocytic choriomeningitis infection. 7313



# SUBJECT INDEX

## PSOCOPTERA

- PROTEINS**  
 Mycelial protein comparisons of isolates of cucurbit anthracnose fungi. 6808  
 The role of the coat protein in the inactivation of tobacco mosaic virus by ultraviolet light. 6931  
 Blood serum protein from mink with aleutian disease. 7185  
 Mode of action of 2,6 dichloro-4-nitroaniline (DCNA) in *Rhizopus arrhizus*. 7750
- PROTEUS**  
 Procaine as an antibiotic and antifungal agent. 7189
- PROTOZOA**  
 Some relationships between *Perezia pyraustae* Paillot (Sporozoa, Nosematidae) and *Pyrausta nubilalis* (Hübner) (Lepidoptera, Pyralidae). 6459  
 Studies of eugregarina in insects. 6470  
*Adelina sericethis* n. sp., a new coccidian parasite of scarabaeid larvae. 6474  
 The natural mechanism of suppression of *Nosema apis* Zander in enzootically infected colonies of the honey bee, *Apis mellifera* Linnaeus. 6483  
 Amoeba disease of the honey bee, *Apis mellifera* Linnaeus, and an attempt at its chemical control. 6533  
 Flagellated protozoa (Trypanosomidae) in the honey bee, *Apis mellifera*, in Australia. 6573  
*Nosema hippodamiae* n. sp., a microsporidian parasite of *Hippodamia convergens* Guerin (Coleoptera, Coccinellidae). 6577  
 Miscellaneous observations on protozoan infections of *Nepa cinerea* Linnaeus including descriptions of two previously unknown species of Microsporidia, *Nosema bialoviesianae* sp. n. and *Thelohania nepae* sp. n. 6578  
 Dispersal of viable algae and protozoa by horse flies and mosquitoes (Diptera, Tabanidae, Culicidae). 6616
- PRUNE DWARF (PLUMS)**  
 Comparison of strains of *Prunus* necrotic ringspot and prune dwarf viruses with viruses of the Pfeffinger (rasp leaf) type. 6696
- PRUNES**  
 Comparison of strains of *Prunus* necrotic ringspot and prune dwarf viruses with viruses of the Pfeffinger (rasp leaf) type. 6696  
 Rate and pattern of prune dwarf virus movement within inoculated cherry trees. 6761  
 First and second year effects on *Cytospora* canker disease of Italian prune trees sprayed with four concentrations of cycloheximide thiosemicarbazone. 6764  
 Absorption, toxicity, and bio-assay of high-potency fungicides in *Prunus domestica*. 6765  
 Variability in rates of movement of different strains of the virus responsible for prune dwarf. 6818  
 Studies on the passage of *Prunus* ringspot virus complex through plum seed. 6942
- PRUNUS DOMESTICA**  
 First and second year effects on *Cytospora* canker disease of Italian prune trees sprayed with four concentrations of cycloheximide thiosemicarbazone. 6764
- PRUNUS MAHALEB**  
 Variability in rates of movement of different strains of the virus responsible for prune dwarf. 6818
- PSALLUS SERIATUS**  
 Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958. 7042
- PSEUDALETIA**  
 Descriptions and characteristics of a nuclear polyhedrosis virus and a granulosis virus of the armyworm, *Pseudaletia unipuncta* (Haworth) (Lepidoptera, Noctuidae). 6646  
 Synergism between two viruses of the armyworm, *Pseudaletia unipuncta* (Haworth) (Lepidoptera, Noctuidae). 6647  
 Sevin residues on soybeans following its use for armyworm control. 7669
- PSEUDANTHONOMUS**  
 Currant fruit weevil, *Pseudanthrenus validus*, a pest of cultivated highbush blueberry. 7069
- PSEUDONYX SCRIPTA**  
 Salmonellosis in turtles in Rhode Island. 7486
- PSEUDOCOCCUS**  
 Control of the grape mealybug on apricots. 7030
- PSEUDOMONADACEAE**  
 Bacteria of grasshoppers of western Canada I. The Pseudomonadaceae, Achromobacteraceae, Micrococcaceae, Brevibacteriaceae, Lactobacillaceae, and less important families. 6503
- PSEUDOMONAS**  
*Pseudomonas caryophylli* in carnation. I. Relation of soil temperature to symptom expression. 6734  
 Physiological factors involved in tumor production by the oleander knot pathogen, *Pseudomonas savastanoi*. 6802  
 Bacterial wilt of bird-of-paradise caused by *Pseudomonas solanacearum*. 6863  
 Inhibition of indoleacetic acid oxidase in tobacco plants infected by *Pseudomonas solanacearum*. 6900  
 Pathological histology of tumors induced in oleander by *Pseudomonas savastanoi*. 6967  
 Procaine as an antibiotic and antifungal agent. 7189  
 Disinfected water suppresses *Pseudomonas* in mice. 7357  
 The effect of 2 hepta-5-methylbenzimidazole and hydrochloric acid on the growth of microflora found on poultry carcasses. 7652  
 Comparative bactericidal properties of N-polyhaloethylthio hydantoins. 7737
- PSEUDOMONAS GLYCINIA**  
 Variability in pathogenicity in the bacterial blight pathogen of soybeans. 6731
- PSEUDOMONAS PHASEOLICOLA**  
 Sources of resistance to halo blight in *Phaseolus vulgaris*. 6698
- PSEUDOMONAS SYRINGAE**  
 Transmission of *Pseudomonas syringae* in peach trees by bud propagation. 6736
- PSEUDOPUSIA**  
 Pathogenicity of *Spicaria rileyi* to *Pseudopusia inclusens*. 6536
- PSEUDOPUSIA INCLUSENS**  
 Bionomics and control of certain *Plusiinae* and studies of an associated nuclear polyhedrosis virus. 6992
- PSEUDORABIES**  
 Aujeszky's disease in dogs. 7205  
 An outbreak of Aujeszky's disease in pigs in Lincolnshire. 7410
- PSEUDOTSUGA**  
*Poria weirii* root rot. 6722  
*Phytophthora cinnamomi* root rot of Douglas-fir. 6875
- PSOCOPTERA**  
 Stored-grain insects and their control in New Jersey. 7647

# SUBJECT INDEX

## PSOROPHORA

- PSOROPHORA  
Observations on the biology of *Psorophora cyanescens*. 6635

- PSOROPTES  
Psoroptic cattle scabies eradication activities for 1962. 7193

- PSOROSIS (CITRUS)  
Transmission of the stubborn and psorosis A viruses of citrus to an herbaceous host. 6928

- PTERIDIUM  
Bracken poisoning of farm animals. 7300

- PTEROSIPHONIA  
New notes on the structure of *Pterosiphonia* (Rhodomelaceae, Ceramiales), and their systematic relationship with *Polysiphonia*. 6481

- PUBLIC HEALTH  
The safe use of toxic chemicals. 7660

- PUCCINA  
Genetic model for physiologic studies of mechanisms governing development of infection type in wheat stem rust. 6876

- PUCCINIA  
Environmental and other factors influencing development of southwestern cotton rust (*Puccinia stakmanii*) 6708

- Cold-induced dormancy and its reversal in uredospores of *Puccinia graminis tritici*. 6713

- Field disease cycle of peppermint rust. 6773

- Inoculation and rust development on peanuts grown in the greenhouse. 6811

- Infection inhibition and germ-tube lysis of three cereal rusts by *Bacillus pumilus*. 6827

- Three distinct pathogenic types of stripe rust in the western states. 6861

- Measuring the pathogenic potential of *Puccinia coronata* var. *avenae*. 6879

- Use of rust (*Puccinia helianthi*) races to discover new gene pools for rust resistance in sunflower (*Helianthus annuus*). 6880

- Effects of various diurnal temperature profiles on host-parasite reaction of wheat varieties and *Puccinia striiformis*. 6903

- Overwintering of stripe rust in winter wheat in Montana. 6904

- Electron microscopy of the sheath surrounding the haustorium of *Erysiphe graminis*. 7711

- PUCCINIA ARACHIDIS  
Some observations of peanut leaf rust and *Cercospora* leaf spots in Texas. 6762

- PUCCINIA GRAMINIS  
The resistance of *Zea mays* to *Puccinia graminis*. 6794

- PUCCINIA SORGHI  
The resistance of *Zea mays* to *Puccinia graminis*. 6794

- PULLORUM DISEASE  
A haemolytic *cocco-bacillus* recovered from poultry. 7340

- PULMONARY EDEMA  
Physiological and pharmacological factors which influence the incidence of acute pulmonary alterations following vagotomy in the domestic cock. 7136

- PULMONARY EMPHYSEMA  
Acute pulmonary emphysema in cattle. 7441

- PUPAE  
Control of root maggots in swede turnips in Newfoundland with heptachlor and aldrin and the effect on parasites and overwintering pupae. 7039

- House fly pupation under baseboards. 7575

## PURIFICATION

- Purification, morphology, and biochemical characterization of the Wisconsin pea streak virus. 6872

## PURPURA HEMORRHAGICA

- A possible case of purpura haemorrhagica in a dog. 7376

- Purpura haemorrhagica in a dog. 7465

- A possible case of purpura haemorrhagica in a dog. 7517

## PYEMIA

- Staphylococcal infection in lambs a study of live and dead lambs from tick-infested farms in North-West Yorkshire and North-East Lancashire. 7543

## PYLORIC STENOSIS

- Pyloric stenosis in the dog. 7418

- Pyloric stenosis in the dog. 7429

## PYRAUSTA

- European corn borer control in peppers. 6990

- European corn borer populations in relation to the estimation of crop loss. 6995

- Increase of European corn borers following soil application of large amounts of dieldrin. 7028

## PYRENOPHORA

- Heterothallism in *Pyrenophora teres*. 6809

## PYRETHRUM

- Effect of temperature on the susceptibility of grubs of *Trogoderma granarium* Everts to pyrethrins. 6534

- Stored-grain insects and their control in New Jersey. 7647

- Pyrethrins and related compounds. ix. alkenbenzyl and benzylbenzyl chrysanthemates. 7690

## PYRIDINE

- Materials discharged by plant-parasitic nematodes. 7103

## PYTHIUM

- Influence of temperature on rate of growth of five fungus pathogens of turfgrass and on rate of disease spread. 6745

- Possible detrimental effect of *Pythium artotrogus* on the cultivated mushroom. 6748

- Evidence for two different pathogens of peanut pod rot. 6754

- Addition of fungal cell-wall components to soil for biological disease control. 6822

- Inoculum potential and effective fungicide dosage in soil. 6869

- Factors affecting the pathogenesis of *Pythium* species on cotton (*Gossypium hirsutum* L) seedlings. 6920

- Fertilizer and soil-fumigation effects on *Pythium splendens* in south Florida. 6934

- A method for evaluating soil fungicides. 6939

- Control of *Pythium* damping-off of melons by simultaneous seeding and soil fumigation with chloropicrin. 6961

- A slender-spored *Dactylella* parasitic on *Pythium* oospores. drechsler, c. 7728

## P32-DELNAV

- Studies on the metabolism and residues of P32-labeled Delnav in a Hereford steer. 7676

## QUEEN BEES

- Storage of queen honey bees, *Apis mellifera* (Hymenoptera, Apidae) in solitary confinement. 6602

## QUERCUS

- Ceratocystis fagacearum* in roots of infected bur oaks and the recurrence and spread of oak wilt. 6831

- Translocation of C14-labeled compounds in cotton and oaks.



## SUBJECT INDEX

RED CLOVER

- 7708 The microbial hydrolysis of cellulose and some factors affecting the production of cellulase in a submerged culture of *Alternaria* sp. 7718
- QUINOLINOL BENZOATE, 8-  
Absorption, toxicity, and bio-assay of high-potency fungicides in *Prunus domestica*. 6765
- QUINOLINOL CITRATE, 8-  
Absorption, toxicity, and bio-assay of high-potency fungicides in *Prunus domestica*. 6765
- QUINOLINOL SULFATE, 8-  
Absorption, toxicity, and bio-assay of high-potency fungicides in *Prunus domestica*. 6765
- RABBIT PAPILLOMA VIRUS  
Immunofluorescent studies of virus-induced rabbit papilloma (Shope) in vitro. 7504
- RABBITS  
Antidote for tannic acid poisoning in rabbits. 7191  
Antidote for tannic acid poisoning in rabbits. 7208  
Response of rabbits and guinea pigs to vesicular stomatitis virus. 7217  
The enteropathogenic effect of *Escherichia coli* in rabbits and pigs. 7324  
Role of aggregated bovine serum albumin in pathogenesis of serum sickness nephritis in rabbits. 7403  
Observations on the blood picture of cattle, sheep and rabbits fed on kale. 7458  
Effects of cortisol and adrenalectomy on induction of interferon by endotoxin. 7468  
Selective toxicity and animal systemic effectiveness of several organophosphates. 7563
- RABIES  
Fluorescent antibody studies for rabies in wildlife. 7163  
Rabies in dogs and man sharply reduced. 7164  
Skunks and cows are rabies threat in Iowa. 7172  
Wildlife rabies increases. 7180  
Effect of rabies virus inoculated into foxes and skunks. 7207  
Potency tests of semple-type rabies vaccines of nervous tissue origin for use in animals. 7283  
A note on rabies and euthanasia in man. 7469
- RABIES VIRUS  
The growth of rabies virus in tissue culture and its use as a living attenuated vaccine for domestic animals. 7224
- RACE HORSES  
Arsenical poisoning of race horses. 7252  
Arsenical poisoning of racehorses. 7279  
Arsenical poisoning of racehorses. 7523
- RACHIPLUSIA OU  
Bionomics and control of certain Plusiinae and studies of an associated nuclear polyhedrosis virus. 6992
- RADIATION  
Control of *Myocoptes musculus* on guinea pigs. 7583
- RADIOACTIVE TRACERS  
Blood loss caused by *Haemonchus contortus* in sheep. 7216  
Metabolism of methylcarbamate insecticide chemicals in plants. 7717
- RADIOBIOLOGY  
Dosimetry for studies on the radiobiology of *Tribolium castaneum* using the Van de Graaff electron accelerator. 7754
- RADIOGRAPHY  
Elbow dysplasia in the German Shepherd dog. 7277  
The radiographic features of calcosinosis circumscripta (Kalkgicht, calcium gout) in the dog. 7538
- RADIOISOTOPES  
Radiostrontium toxicity in miniature swine. 7420  
Translocation of C14-labeled compounds in cotton and oaks. 7708
- RADISHES  
Nature and inheritance of resistance to *Albugo candida* in radish. 6965
- RADOPHOLUS SIMILIS  
An attempt to extend the longevity of the burrowing nematode, *Radopholus similis*, with citrus root exudate. 7098
- RAILLIETINIASIS  
The occurrence of *Railletia auris* in Zebu cattle in Nigeria. 7609
- RAMS  
Ram epididymitis versus brucellosis. 7184
- RANGES  
Paraquat for selective control of range weeds. 7125
- RAPHOPLUSIA  
Problems in the control of mint insects. 7009
- RASP LEAF (PRUNUS)  
Comparison of strains of *Prunus* necrotic ringspot and prune dwarf viruses with viruses of the Pfeffinger (rasp leaf) type. 6696
- RASPBERRIES  
Influence of heat-labile components of the raspberry mosaic virus complex on growth and yield of red raspberries. 6724
- RATOON STUNT (SUGARCANE)  
Effect of heat treatment of sugarcane for control of ratoon stunting disease (RSD) on spread of mosaic. 6981
- RATS  
Control of the oriental rat flea with systemic insecticides fed to rats. 6542  
Vitamin D-induced calcium binding factor in rat intestinal mucosa. 7388  
Effect of melatonin on thyroid hormone secretion rate and feed consumption of female rats. 7444  
A systemic insecticide and bait for flea and rat control. 7561  
Selective toxicity and animal systemic effectiveness of several organophosphates. 7563  
Immunity to *Fasciola hepatica* infection in albino rats vaccinated with irradiated metacercariae. 7638  
Heritable resistance to warfarin in rats. 7693  
Toxicological aspects of 2,2-dichlorovinyl dimethyl phosphate (DDVP) in cows, horses, and white rats. 7699
- RATTLE DISEASE (TOBACCO)  
An apparent strain of tobacco rattle virus associated with a yellow spotting of lettuce. 6757  
Electron microscopy of tobacco rattle type viruses. allen jr, t l. 6844
- RECIRCULATION  
Distribution and sorption of liquid fumigants applied to wheat by recirculation. 6688
- RED CLOVER  
Pollination of red clover in Minnesota. 6611  
BHC translocation from treated soil and the effect on growth of red clover. 6686  
A physiogenic leaf and stem spot of some forage legumes. 6790

# SUBJECT INDEX

## RED LEAF DISEASE (PEARS)

- A new pea streak virus related to red clover vein mosaic virus (RCVMV). . . 6977
- Further studies on control of the clover root borer in Virginia. 7080

## RED LEAF DISEASE (PEARS)

- Red leaf disorders of pear in California and their relation to pear decline. 6836

## RED WATER DISEASE

- Bacillary hemoglobinuria (redwater disease) in florida. 7617

## REDPEPPERS (VEGETABLE)

- A soil-borne virus disease of pepper in california. 6852
- Identification of the viruses affecting commercial varieties of pepper (*Capsicum annum*) in New Jersey. 6925
- DDT residue studies on peppers. 7675

## REFERENCE MATERIALS

- Report and abstracts of the 1963 annual meeting of the Pacific Division of the American Phytopathological Society. 6689

## REFUSE DISPOSAL

- Drosophila breeding in refuse from tomato canneries. 7031

## REOVIRUSES

- Similarities between wound-tumor virus and the human-pathogenic reoviruses. 6932
- Characterization and classification of newly isolated avian enteric viruses. 7284

## REPORTS

- Report and abstracts of the 1963 annual meeting of the Pacific Division of the American Phytopathological Society. 6689
- Abstracts of papers accepted for presentation at the fifty-fifth annual meeting of the American Phytopathological Society, Amherst, Mass., August 26, 27, 28, 29, 1963. 6690

## REPRODUCTION

- Evaluation of compounds of cadmium and related metals as reproduction inhibitors in insects. 6476
- The influence of various nitrogen compounds on sexual reproduction in *Hyponomes solani* f. *cucurbitae*. 6699
- Multiplication of *Xanthomonas vesicatoria* on tomato seedlings. 6796
- Reproduction of *Pratylenchus penetrans* on corn roots cultured on various nutrient media. 6896
- Influence of vitamin D on avrious aspects of the reproductive process in mature hens. 7142
- The haploid behavior of *Urocystis colchici* teliospores. 7725

## REPRODUCTIVE ORGANS

- A detailed morphological study of the external and internal genital organs of female *Melanagromyza obtusa* (Malloch), a serious pest of *Cajanus indicus* L. (Agromyzidae, Diptera). 6560
- The reproductive system of the pink sugarcane mealybug, *Saccharicoccus sacchari* Cockerell (Homoptera, Pseudococcidae). 6665

## RESERPINE

- Physiological and pharmacological factors which influence the incidence of acute pulmonary alterations following vagotomy in the domestic cock. 7136

## RESERVOIRS

- A limnological investigation of the Aufwuchs community in two mainstem Missouri River reservoirs. 6451

## RESIDUES

- Evaluation of insecticides for control of the Fuller rose beetle on citrus in California. 7004

- Residues of Sevin and 1-naphthol on forage from aerial applications of Sevin in oil. 7020

- Pickleworm control and residue studies with malathion and phosdrin. 7107

- Possible hazards in the veterinary use of antibiotics with particular reference to their use as food additives. 7146

- Toxaphene residues in hogs. 7578

- Nicotine residues in field-treated cauliflower, celery, green beans, kale, mustard greens and spinach. 7661

- A colorimetric method for the determination of Co-Ral in animal tissues. 7665

- Measuring the surface area of apples for expression of pesticide residues. 7666

- Residues in established alfalfa treated with granulated phorate (Thimet) and their effect on cattle fed the hay. 7667

- The excretion of dieldrin, DDT, and heptachlor epoxide in milk of dairy cows fed on pastures treated with dieldrin, DDT, and heptachlor. 7668

- Sevin residues on soybeans following its use for armyworm control. 7669

- Heptachlor residues on corn stover in relation to dairy cattle feeding. 7670

- The effect of soil treatments of chlordane or heptachlor on the flavor of turnips, parsnips, and carrots. 7671

- Persistence of DDT, aldrin, and lindane in some midwestern soils. 7672

- Epoxidation of aldrin and heptachlor in soils as influenced by autoclaving, moisture, and soil types. 7673

- Malathion residues on and in the leaves of *Phaseolus vulgaris*. 7674

- DDT residue studies on peppers. 7675

- Studies on the metabolism and residues of P32-labeled Delnav in a Hereford steer. 7676

- Acute toxic effects upon livestock and meat and milk residues of dieldrin. 7677

- Residue studies of livestock sprays containing Sevin. 7678

- Residues of malathion on alfalfa and in milk and meat. 7680

- DDT deposits on grapes as affected by growth and weathering. 7682

- Parathion and EPN residue studies on Concord grapes. 7683

## RESISTANCE

- Morphological changes in a parasitic nematode due to acquired resistance of the host. 7624

- Heritable resistance to warfarin in rats. 7693

## RESISTANT STRAINS

- Salmonella resistance increases. 7424

## RESPIRATION

- Effect of fungicides on the respiration of three species of soil fungi. 6941

- Respiratory activity and enzymes for glucose catabolism in fungus spores. 7704

- Influence of oat and alfalfa residues on soil respiration, fungistasis, and survival of *Verticillium albo-atrum*. 7723

## RESPIRATORY DISEASES

- Respiratory disease in vaccinated feeder cattle. 7211

- Epizootiology of bovine myxovirus parainfluenza 3(sf-4) in Nebraska cattle as determined by antibody titers. 7398



# SUBJECT INDEX

## RINDERPEST

- Studies on equine respiratory viruses. 7466
- RETINA**  
Hereditary retinal atrophy in the poodle. 7238
- REVIEWS**  
Biological races of *Albugo candida*. 7722
- RHAMNUS**  
Measuring the pathogenic potential of *Puccinia coronata* var. *avenae*. 6879
- RHINITIS**  
Common problems in the pig. 7144  
Chronic rhinitis in cats. 7275
- RHINOTRACHEITIS**  
Infections bovine rhinotracheitis abortion and its relationship to nutrition in California beef cattle. 7278  
Viral causes of bovine abortion in Ohio. 7493
- RHIZOCTONIA**  
Influence of temperature on rate of growth of five fungal pathogens of turfgrass and on rate of disease spread. 6745  
Evidence for two different pathogens of peanut pod rot. 6754  
Infection of seedling cotton hypocotyl by an isolate *Rhizoctonia solani*. 6781  
Identification of three physiologic races of *Rhizoctonia solani* isolated from seedling cotton. 6905  
A method for evaluating soil fungicides. 6939  
Inhibition of fungi by culture media previously exposed to light. 6954  
The macerating enzyme of *Rhizoctonia solani*. 7701
- RHIZOME**  
Fusarium yellows and rhizome rot of common ginger. 6945
- RHIZOPUS**  
The role of *Drosophila melanogaster* in the epiphytology of *Geotrichum*, *Rhizopus*, and other fruit rots of tomato. 6716  
Physiology of *Rhizopus* infection on carrot. 6814  
Effects of 2,6-dichloro-4-nitroaniline on *Rhizopus* species and its comparison with other fungicides on control of *Rhizopus* rot of peaches. 6838  
Variations in tolerance of *Rhizopus* species to 2,6-dichloro-4-nitroaniline. 6839  
Hydrothermal and hygrothermal inactivation of *Monilinia fructicola* and *Rhizopus stolonifer* spores. 6912  
Production of pectinolytic and cellulolytic enzymes by *Rhizopus stolonifer*. 6919  
Relation of seed-borne fungi to boll rots of cotton. 6960  
The mode of action of 2,6-dichloro-4-nitroaniline in *Rhizopus arrhizus* spores. 7729  
Mode of action of 2,6-dichloro-4-nitroaniline (DCNA) in *Rhizopus arrhizus*. 7750
- RHIZOSPHERE**  
Influence of host and nonhost plants upon populations of *Thielaviopsis basicola* in soil. 6704  
Microbial antagonism in bean rhizosphere as affected by oat straw and supplemental nitrogen. 6847  
Effects of oat straw and supplemental nitrogen on microbial antagonism in bean rhizosphere. 6848  
Antibiotic production by *Streptomyces* sp. in corn rhizosphere. 6864
- RHODE ISLAND**  
Salmonellosis in turtles in Rhode Island. 7486
- RHODODENDRON**  
Systemic insecticides for control of scales, leaf miners, and lace bugs. 7059
- RHODOTORULA**  
The effect of 2-hepta-5-methylbenzimidazole and hydrochloric acid on the growth of microflora found on poultry carcasses. 7652
- RHOPALIDAE**  
The higher classification of the family Rhopalidae (Hemiptera) together with a revision of the genus *Arhyssus* Stål (*Rhopalidae* Hemiptera). 6450
- RHOPALOSIPHUM**  
Morphological identification of virus-like particles in the corn leaf aphid, *Rhopalosiphum maidis* (Fitch) 6607  
Vectors of alfalfa and bean yellow mosaic viruses in Ladino white clover. 6803
- RHUS TRILOBATA**  
Control of *Cylindrosporium* leaf spot disease of *Rhus trilobata* and *Shepherdia argentea* seedlings. 6855
- RHYACIONIA**  
Influence of timing and insect biology on the effectiveness of insecticides applied for control of European pine shoot moth, *Rhyacionia bholiana*. 6991  
Field testing of insecticides for control of the Nantucket pine moth, *Rhyacionia frnstrana*, and the European pine shoot moth, *R. bholiana*. 7001
- RIBONUCLEIC ACID**  
Incorporation of radioactive uridine into the RNA of the lepidopteran *Barathra brassicae*. 6599  
Purification and properties of bromegrass mosaic virus. 6723  
Effects of ultraviolet preinoculation treatment of leaves on subsequent infection by tobacco mosaic virus and TMV. ribonucleic acid. 6899  
Release of ribonucleic and amino acids by *Phytophthora*. 7745  
The effect of n-dodecylguanidine acetate on enzyme activity and the nucleotides of ribonucleic acid. 7749  
Mode of action of 2,6-dichloro-4-nitroaniline (DCNA) in *Rhizopus arrhizus*. 7750
- RICE**  
The relation between storage molds and damage in high-moisture rice in aerated storage. 6894  
Orange stain, a storage disease of rice caused by *Penicillium puberulum*. 6895  
Factors affecting invasion of grains and seeds by *Aspergillus flavus* and effects of the fungus on germination of the seeds. 7644
- RICKETTSIAL DISEASES**  
Histological observations on the development of crystalline inclusions of the rickettsial disease of *Tipula paludosa* Meigen. 6550  
On the problem of crystals with rickettsial infections. 6569
- RIFT VALLEY FEVER VIRUS**  
Rift valley fever in calves, goats and pigs. 7194  
Rift valley fever in lambs and sheep. 7206
- RINDERPEST**  
Subendocardial haemorrhage in rinderpest-infected cattle. 7495  
Fatal strike caused by *Chrysomya bezziana* in cattle and buffaloes. 7633  
Vaccination of calves against rinderpest. 7634

# SUBJECT INDEX

RING MOTTLE (BEETS)	
RING MOTTLE (BEETS) Beet ring mottle disease.	6738
RING SPOT (DAHLIA) A ringspot virus from dahlia.	6793
RING SPOT (PRUNUS) Studies on the passage of Prunus ringspot virus complex through plum seed.	6942
RING SPOT (TOBACCO) Relationships of viruses associated with ringspot diseases of blueberry.	6798
RINGWORM	
Dermatophytosis (ringworm) pathogenesis, diagnosis, and treatment.	7250
Parafilaria multipapillosa in the horse.	7320
Parafilaria multipapillosa in the horse.	7626
Griseofulvin in the treatment of bovine ringworm.	7628
ROCKY MOUNTAIN SPOTTED FEVER	
Ticks in the united states serve as vectors of disease.	7187
ROCKY MOUNTAINS	
Forest-insect surveys in the central Rocky Mountains.	7077
RODENT CONTROL	
Heritable resistance to warfarin in rats.	7693
RODENTICIDES	
Heritable resistance to warfarin in rats.	7693
ROE	
Dipyridylum residues in an aquatic environment.	7662
RONNEL	
Control of the oriental rat flea with systemic insecticides fed to rats.	6542
Effect of ronnel upon the adult rice weevil, Sitophilus oryza.	7012
A systemic insecticide and bait for flea and rat control.	7561
Laboratory and field tests against mites and lice attacking poultry.	7562
House fly control in pig parlors.	7566
Field studies of house fly resistance to organophosphorus insecticides.	7569
Residual effectiveness of certain insecticides in horn fly control.	7572
Control of the northern fowl mite, Ornithonissus sylviarum (C. + F.), with ronnel, Bayer 113/59, and Bayer 21/199.	7573
Organophosphate systemics as sprays and feed additives for cattle grub control.	7577
The in vivo activity of several systemic insecticides against cattle grubs in South Dakota.	7582
Feed lot tests with ronnel for control of cattle grubs.	7586
Further experiences with the systemic insecticides Etrolene and Ruelene in 1960-61.	7600
Toxicity of organic phosphorus insecticides to horses.	7694
ROOT EXCRETIONS	
Factors affecting the pathogenesis of Pythium species on cotton (Gossypium hirsutum L) seedlings.	6920
An attempt to extend the longevity of the burrowing nematode, Radopholus similis, with citrus root exudate.	7098
ROOT ROT (ALFALFA)	
Phytophthora root rot of alfalfa in Minnesota.	6751
ROOT ROT (AVOCADOS)	
Biological control of Phytophthora root rot of avocado with alfalfa meal.	6978
ROOT ROT (BEANS)	
Chitin-lignin amendments for control of bean root rot.	6807
ROOT ROT (CORN)	
Effect of crop rotation on yields, stalk rot, and root rot of corn.	6964
ROOT ROT (COTTON)	
Recognition of Phymatotrichum root rot of cotton and alfalfa in an aerial survey.	6858
ROOT ROT (PSEUDOTSUGA MENZIESII)	
Poria weirii root rot.	6722
Phytophthora cinnamomi root rot of Douglas-fir.	6875
ROOTS	
Symposium on root diseases of forest trees. invitational papers presented august 27, 1962, at the fifty-fourth annual meeting of the American Phytopathological Society at Corvallis, Oregon.	6692
Vancomycin prevents crown gall.	6711
Summation.	6766
Control of downy mildew of opium poppy by root application of fungicides.	6788
Phytopathological notes. inducing infection of pear rootlets by Phytophthora cactorum in pot tests.	6810
Ceratocystis fagacearum in roots of infected bur oaks and the recurrence and spread of oak wilt.	6831
Relation of decomposing plant residues to root growth of alfalfa.	6840
Reproduction of Pratylenchus penetrans on corn roots cultured on various nutrient media.	6896
Influence of root exudates of cacao and other plants on spore development of Phytophthora palmivora.	6947
Control of the woolly apple aphid on roots of apple nursery stock.	7011
Control of root maggots in swede turnips in Newfoundland with heptachlor and aldrin and the effect on parasites and overwintering pupae.	7039
The histological relationship of resistance to the citrus nematode in certain citrus rootstocks.	7114
Production of 3-methyl-6-methoxy-8-hydroxy-3,4-dihydroisocoumarin by carrot root tissue.	7736
Purification of the selective toxin of Periconia circinata.	7755
ROSA	
Vancomycin prevents crown gall.	6711
Hairy root (Agrobacterium rhizogenes) of field roses.	6829
Hostiparasite interaction in blackspot disease of roses caused by Diplocarpon rosae Wolf.	6886
ROT	
Varietal resistance to clover rot in white clover.	6694
ROT (GINGER)	
Fusarium yellows and rhizome rot of common ginger.	6945
ROT (PEACHES)	
Effects of 2,6-dichloro-4-nitroaniline on Rhizopus species and its comparison with other fungicides on control of Rhizopus rot of peaches.	6838



# SUBJECT INDEX

## SANITATION

- ROT (TOMATOES)**  
The role of *Drosophila melanogaster* in the epiphytology of Geotrichum, Rhizopus, and other fruit rots of tomato. 6716
- ROTENONE**  
Resistance of *Boophilus microplus* to organo-phosphorus insecticides. 7503
- ROTYLENCHULUS**  
A plant-parasitic nematode of the genus *Rotylenchulus* found in California. 7102
- ROUGHAGE**  
The influence of physical form of roughages and antibiotic administration on performance, carcass characteristics, health, of the rumen epithelium, rumen volatile fatty acids and liver abscesses of steers fed all-concentrate rations. 7347
- ROUS SARCOMA VIRUS**  
Rous sarcoma virus infection of chicken buffy coat macrophage. 7472
- ROYAL JELLY**  
The influence of environmental and nutritional factors on growth and caste determination of female honey bees. 6519
- RUELENE**  
Further experiences with the systemic insecticides Etrone and Ruelene in 1960-61. 7600  
Field trials comparing the anthelmintic effect of Ruelene (4-tert-butyl-2-chlorophenylmethyl methylphosphoramidate) with that of phenothiazine. 7601  
Toxicity of organic phosphorus insecticides to horses. 7694
- RUMEN**  
An analysis of the bloat complex and progress towards its prevention. 7236  
The influence of physical form of roughages and antibiotic administration on performance, carcass characteristics, health, of the rumen epithelium, rumen volatile fatty acids and liver abscesses of steers fed all-concentrate rations. 7347
- RUMINANTS**  
Public health aspects of cesium-137 in ruminants. 7501
- RUSSET SCAB (POTATOES)**  
Growth and survival of the pathogen causing russet scab on potatoes. 6709
- RUST (BEANS)**  
Changes in multiple molecular enzymes in rusted bean leaves. 6923  
Heat therapy of bean rust. 6974
- RUST (GRAIN)**  
Infection inhibition and germ-tube lysis of three cereal rusts by *Bacillus pumilus*. 6827
- RUST (MENTHA PIPERITA)**  
Field disease cycle of peppermint rust. 6773
- RUST (OATS)**  
Photosynthetic phosphorylation by chloroplasts isolated from rust-infected oats. 6972
- RUST (SUNFLOWER)**  
Use of rust (*Puccinia helianthi*) races to discover new gene pools for rust resistance in sunflower (*Helianthus annuus*). 6880
- SACBROOD**  
The incidence of virus diseases in honey bees. 6448
- SACCHARICOCCUS SACCHARI**  
The reproductive system of the pink sugarcane mealybug, *Saccharicoccus sacchari* Cockerell (Homoptera, Pseudococcidae). 6665
- SAFFLOWER**  
Studies on levels of reducing sugars and hydrolytic enzymes in relation to Botrytis head rot on safflower. 6703
- Wilt-incitant *Fusarium oxysporum* f. *carthami* present in seed from infected safflower. 6785  
Stemphyllium leafspot of safflower. 6870
- SALIVARY GLANDS (INSECTS)**  
Cytological and autoradiographic studies on *Sciara coprophila* salivary gland chromosomes. 6671  
Recovery of aster yellows from excised organs of insect vectors. 6770
- SALMONELLA**  
Salmonellosis in the dog. 7221  
Salmonellosis in turtles in Rhode Island. 7486  
Mortality and morbidity in calves with salmonellosis. 7489  
Concurrent *Salmonella typhimurium* and *Eimeria necatrix* infections in chicks. 7518  
New investigations on cold-blooded animals as *Salmonella* sources. 7546  
Effect of methyl bromide *Salmonella pullorum*. 7700
- SALMONELLA BACTERINS**  
Bog cholera Breaks influenced by bacterial infection. 7219
- SALMONELLA ENTERITIDIS**  
Inhibition of enzymes by the anthocyanin malvidin-3-monoglucoside. 7730
- SALMONELLOSIS**  
Salmonella problem receives primary attention at AVMA council meeting. 7170  
Salmonellosis in the dog. 7221  
Three cases of *Salmonella dublin* in adult cattle on the same farm. 7227  
Salmonella and the U.S. meat industry action and reaction. 7331  
An outbreak of *Salmonella pullorum* infection in turkey poult. 7364  
Salmonellosis in slaughterhouses in Israel. 7375  
The control of an outbreak of *Salmonella dublin* in calves. 7401  
Salmonella pullorum infections in turkeys. 7412  
Salmonella resistance increases. 7424  
Salmonellosis A serious outbreak in a dairy herd. 7438  
Salmonellosis in animals threatens man. 7467  
Salmonellosis in turtles in Rhode Island. 7486  
Mortality and morbidity in calves with salmonellosis. 7489  
Salmonellosis, a pet-implicated zoonosis. 7527  
New investigations on cold-blooded animals as *Salmonella* sources. 7546  
Salmonellosis in turtles in Minnesota. 7553
- SAMPLING (STATISTICS)**  
A sampling technique for estimating populations of small arthropods in soil and vegetation. 6455  
Estimating immature populations of rice weevils in wheat by using subsamples. 6460  
A study of mealybug populations (*Dysmicoccus brevipes* (Ck1.)) in an ant-free field. 6994
- SANITATION**  
Salmonella and the U.S. meat industry action and reaction. 7331

# SUBJECT INDEX

## SANITATION CONTROL (PESTS)

### SANITATION CONTROL (PESTS)

Hairy root (*Agrobacterium rhizogenes*) of field roses.

6829

### SAPONINS

Injected saponins as abortifacients.

7203

### SAPROPHYTES

Saprophytism and persistence in soil by *Phytophthora cinnamomi*.

6979

### SARCOMA

Osteogenic sarcoma of the oesophagus in a dog.

7262

The differential diagnosis of bone tumours in the dog.

7450

### SARCOPTIFORMES

A study of the life history of the pigeon feather mite, *Falculifer rostratus* (Buchholz), 1869, in vivo and in vitro.

6493

### SANDUST

The microbial hydrolysis of cellulose and some factors affecting the production of cellulase in a submerged culture of *Alternaria* sp.

7718

### SCAB (APPLES)

Chemotherapy of the apple scab disease with butyric acid derivatives.

6801

### SCAB (POTATOES)

Streptomycin resistance -- a technique for the direct assay of potato scab organisms from soil.

6953

### SCAB (WHEAT)

Factors affecting resistance of wheat to scab caused by *Gibberella zeae*.

6893

### SCABIES

Psoroptic cattle scabies eradication activities for 1962.

7193

### SCAPTOMYZA

Drosophilid survey of India. III. the *Drosophilida* of Kashmir Valley.

6466

### SCARABAEIDAE

*Adelina sericethis* n. sp., a new coccidian parasite of scarabaeid larvae.

6474

### SCELIPHRON CAEMENTARIUM

The venom of the mud-dauber wasp *Sceliphron caementarium*.

6620

### SCHISTOCERCA

Motile streptococci from the desert locust, *Schistocerca gregaria*.

6641

An infection of the desert locust, *Schistocerca gregaria* Forskal with a nonchromogenic strain of *Serratia marcescens* Bizio.

6642

The normal bacterial flora of the alimentary canal of laboratory stocks of the desert locust, *Schistocerca gregaria* Forskal.

6643

Epizootiology of a disease of the desert locust, *Schistocerca gregaria* (Forskal), caused by nonchromogenic strains of *Serratia marcescens* Bizio.

6644

Oral infection of second-instar nymphs of *Schistocerca gregaria* by *Metarrhizium anisopliae*.

6651

Correlation between sperm redundancy and chiasma frequency.

6669

### SCHISTOCERCA GREGARIA

An infection of the desert locust, *Schistocerca gregaria* Forskal with a nonchromogenic strain of *Serratia marcescens* Bizio.

6642

Effect of mineral oil solvent on the toxicity and speed of action of malathion.

7686

### SCIARA COPROPHILA

Cytological and autoradiographic studies on *Sciara coprophila* salivary gland chromosomes.

6671

### SCLEROPHTHORA

Oospore characters in the classification of *Sclerophthora* and *Sclerospora* species.

6883

### SCLEROSPOORA

Sporangial germination of *Sclerospora graminicola* and inoculation of *Pennisetum glaucum*.

6882

Oospore characters in the classification of *Sclerophthora* and *Sclerospora* species.

6883

### SCLEROTINIA

Influence of temperature on rate of growth of five fungus pathogens of turfgrass and on rate of disease spread.

6745

### SCLEROTINIA FRUCTIGENA

Antifungal phenolic acids in apple fruits after infection with *Sclerotinia fructigena*.

6746

### SCLEROTINIA TRIFOLIORUM

Varietal resistance to clover rot in white clover.

6694

### SCLEROTIUM

Variation in susceptibility to *Sclerotium rolfsii* among peanut varieties.

6755

Effect of fungicides on the respiration of three species of soil fungi.

6941

### SCLEROTIUM BATATICOLA

Varietal response in groundnut to *Sclerotium bataticola*.

6806

### SCOLYTIDAE

The biological impact of the checkered beetles (Coleoptera: Cleridae) on populations of Ips bark beetles (Coleoptera: Scolytidae).

6565

### SCRAPIE

The spread of scrapie by contact between affected and healthy sheep, goats or mice.

7456

### SCURVY

Suspected skeletal scurvy in the dog.

7360

Suspected skeletal scurvy in the dog.

7372

Suspected skeletal scurvy in the dog.

7464

Suspected skeletal scurvy in a dog.

7490

### SCUTIGERELLA

Infection of the garden symphylan, *Scutigereilla immaculata* with the DD-136 nematode.

6645

### SD-3562

The effect of seed treatments with phorate and other systemic insecticides on the germination of wheat.

7027

### SD-4402

The bean leaf skeletonizer, *Autoplusia egea*, and its control on bush snap beans in the everglades.

7006

### SEASONAL SWINE DISEASE

ISU veterinarians suspect two weeds as cause of seasonal swine disease.

7157

### SEC-BUTYLAMINE

Control of *Penicillium* decay of oranges with certain volatile aliphatic amines.

6741

### SEDIMENTATION

Sedimentation properties of two stone fruit viruses.

6940

### SEDUM

*Stemphylium* leafspot of *Echeveria*, *Kalanchoe*, and *Sedum*.

6916

### SEED GERMINATION

BBC translocation from treated soil and the effect on growth of red clover.

6686

Effect of SMDC on germination, plant growth, and fusarium wilt incidence of cumin (*Cuminum cyminum*).

6805

Improving emergence of pelleted vegetable seeds with porous coatings.

6917

The effect of phorate applied to seed on the growth,



## SUBJECT INDEX

## SHEEP

- development and insects attacking grain sorghum. 7005
- The effect of seed treatments with phorate and other systemic insecticides on the germination of wheat. 7027
- Factors affecting invasion of grains and seeds by *Aspergillus flavus* and effects of the fungus on germination of the seeds. 7644
- Germination of cereal, sorghum, and small legume seeds after fumigation with hydrogen phosphide. 7645
- Effect of methyl bromide and hydrocyanic acid fumigation on the germination of flax seeds. 7650
- Isolation and characterization of a germination inhibitor from sugar beet fruit. 7721
- SEED PLANTING**
- Control of *Pythium damping-off* of melons by simultaneous seeding and soil fumigation with chloropicrin. 6961
- SEED TREATMENT**
- Moisture sensitivity, mechanical injury and gibberellin treatment of *Beta vulgaris* seeds. 6721
- Disinfection of tomato seed infested with *Xanthomonas vesicatoria*. 6797
- Improving emergence of pelleted vegetable seeds with porous coatings. 6917
- The effect of seed treatments with phorate and other systemic insecticides on the germination of wheat. 7027
- SEED-BORNE PLANT DISEASES**
- Seed transmission of white clover mosaic and clover yellow mosaic viruses in red clover. 6760
- Wilt-incitant *Fusarium oxysporum* f. *carthami* present in seed from infected safflower. 6785
- Studies on the passage of *Prunus ringspot virus complex* through plum seed. 6942
- Relation of seed-borne fungi to boll rots of cotton. 6960
- SEEDLINGS**
- Infection of spruce seedlings by *Cylindrocladium scoparium*. 6715
- Infection of seedling cotton hypocotyl by an isolate *Rhizoctonia solani*. 6781
- Infesting seven-day-old alfalfa seedlings with wilt bacteria through wounded Cotyledons. 6789
- Multiplication of *Xanthomonas vesicatoria* on tomato seedlings. 6796
- Identification of three physiologic races of *Rhizoctonia solani* isolated from seedling cotton. 6905
- Influence of plant age on the survival of alfalfa varieties differing in resistance to the spotted alfalfa aphid. 7018
- Toxicity of BHC to loblolly pine seedlings. 7068
- Biology and control of the apple seed chalcid in North Carolina. 7072
- Translocation of C14-labeled compounds in cotton and oaks. 7708
- Bioassay methods for 4-amino-3,5,6-trichloropicolinic acid. 7742
- SEEDS**
- Internally infected seed as a source of inoculum for the primary cycle of bacterial blight of cotton. 6712
- Fungi attacking seeds in dry seed-beds. 6759
- Wilt-incitant *Fusarium oxysporum* f. *carthami* present in seed from infected safflower. 6785
- Disinfection of tomato seed infested with *Xanthomonas vesicatoria*. 6797
- Studies on the passage of *Prunus ringspot virus complex* through plum seed. 6942
- Green-seeded downy mildew-resistant Fordhook lima beans. 6958
- The effect of phorate applied to seed on the growth, development and insects attacking grain sorghum. 7005
- Effect of feeding various levels *Crotalaria spectabilis* seed on the performance of chicks, turkeys, and pullets. 7342
- Pathologic changes associated with feeding various levels of *Crotalaria spectabilis* seed to poultry. 7508
- Factors affecting invasion of grains and seeds by *Aspergillus flavus* and effects of the fungus on germination of the seeds. 7644
- Effects of relative humidity and temperature on the degradation of peanut sugar and oil by *Aspergillus flavus*. 7714
- SELENIUM**
- White muscle disease, a selenium-responsive myopathy. 7443
- SEMINAL VESICLES**
- Seminal vesiculitis in bulls associated with infection by *Actinobacillus actinoides*. 7384
- SERODIAGNOSIS**
- A preliminary report on the occurrence of infectious laryngotracheitis of poultry in India. 7510
- SEROLOGICAL TESTS**
- Bentonite flocculation a rapid, sensitive serological test for the detection of plant virus antigens. 6897
- Identification of the viruses affecting commercial varieties of pepper (*Capsicum annuum*) in New Jersey. 6925
- Combined serologic tests most accurate for identifying brucellosis reactors. 7183
- Infectious bronchitis virus types--Incidence in the United States. 7356
- Rapid plant virus assay combines density-gradient centrifugation and Ouchterlony agar diffusion serological tests. 7712
- SERUM**
- Complement-fixation test for detecting Japanese encephalitis virus. 7198
- Pregnancy hormones and brucellacidal activity in bovine serum. 7213
- SEX**
- Effects of geographic isolation and host association on the evolution of sexuality in *Helminthosporium*. 6835
- The incidence of spontaneous pathologic changes in aortas of growing turkeys. 7138
- SEX ATTRACTANTS**
- Evidence of sex attractant in female *Dysdercus cingulatus* Fabr. 6604
- SEX DETERMINATION**
- Karyological studies on the Indian spiders. VI. chromosome number and sex-determining mechanism in the family Araneidae). 6675
- SHEEP**
- Ovine abortion virus in ewes and fetuses. 7195
- Three methods for controlling grass tetany in cattle and sheep. 7202
- Rift valley fever in lambs and sheep. 7206
- Blood loss caused by *Haemonchus contortus* in sheep. 7216
- Chronologic evaluation of tetragenicity in sheep fed *Veratrum californicum*. 7249
- Vitamin D3 and ovine ring womb. 7257

# SUBJECT INDEX

## SHEETS

- Acorn poisoning in a cow and a sheep. 7308
- Newer knowledge of ovine vibriosis. 7310
- The effect of staphylococcal toxins on ruminant erythrocytes treated with diffusible substances formed by corynebacteria. 7312
- The control of Nematodirus fillicollis infection by strategic anthelmintic medication. 7321
- The assessment of the value of topical applications for the treatment of contagious foot-rot in sheep, with particular reference to Dichlorophen. 7346
- Foot-rot in feeding sheep. 7404
- The spread of scrapie by contact between affected and healthy sheep, goats or mice. 7456
- The occurrence of gaseous lymphadenitis and Morel's disease in a sheep flock in Kenya. 7505
- Incomplete dilation of the ovine cervix. 7515
- Sulphur poisoning in ewes. 7547
- Intestinal herniation in the ewe. 7548
- Thiabendazole as an anthelmintic in cattle and sheep. 7588
- Further studies on toxoplasmosis and ovine abortion in Yorkshire. 7596
- Ovine abortion and toxoplasmosis in the East Midlands. 7597
- Infection of goats with Eimeria spp. of sheep origin. 7610
- Bacillary hemoglobinuria (redwater disease) in Florida. 7617
- A simple method for the culture and recovery of larvae of intestinal nematodes of sheep. 7636
- The anthelmintic activity of methyridine by intraperitoneal injection in sheep and cattle. 7640
- Studies on the distribution of the sheep tick (Ixodes ricinus L.) and the occurrence of enzootic staphylococcal infection of lambs in North-West Yorkshire and North-East Lancashire. 7641
- The role of selected management systems in the control of sheep parasites. 7642
- Acute toxic effects upon livestock and meat and milk residues of dieldrin. 7677
- The search for veterinary insecticides. II. carbamates active against sheep blowfly. 7691

## SHEETS

- Toxicity of cellulose acetate sheeting to leguminous plants. 7026

## SHELL SD 3562

- Selective toxicity and animal systemic effectiveness of several organophosphates. 7563

## SHEPHERDIA ARGENTEA

- Control of Cylindrosporium leaf spot disease of Rhus trilobata and Shepherdia argentea seedlings. 6855

## SHIPPING FEVER

- Studies on an experimental vaccine for prophylaxis of shipping fever. 7314
- Studies on myxovirus parainfluenza-3 vaccine for prevention of shipping fever in cattle. 7395
- Tick transmission of bovine pasteurellosis. 7621

## SHERBS

- The effect of Criconemoides curvatum and Pratylenchus penetrans on woody ornamentals. 7099

## SILICON

- Silicon content of intact nuclear polyhydra from the corn earworm, Heliothis zea. 6525

- Silicon content of the paraspora crystal of several crystalliferous bacteria. 6527

## SIMAZINE

- An evaluation of atrazine, simazine, monuron and diuron on ten Hawaiian sugar cane plantations. 7132

- The mechanism of the interaction between soil organic matter and herbicide toxicity and the influence of pH on herbicide phytotoxicity. 7698

## SIMULIIDAE

- The black flies (Diptera: Simuliidae) of western Massachusetts. 6457

## SINALBIN

- Studies on the decomposition of sinalbin. II. the composition products of sinalbin and their degradation pathways. 7741

## SINUSITIS

- The treatment of infectious sinusitis of turkeys with Furazolidone. 7511

## SIPHONAPTERA

- Fleas (Siphonaptera) of Alabama and their host relationship. 6467

- A systemic insecticide and bait for flea and rat control. 7561

## SITOPHILUS

- Estimating immature populations of rice weevils in wheat by using subsamples. 6460

- Effect of ronnel upon the adult rice weevil, Sitophilus oryza. 7012

- The effect of grain moisture upon development of the rice weevil in green corn. 7049

- Effectiveness of mixtures of acrylonitrile and carbon tetrachloride against three pests of stored corn. 7055

- Development of granary weevils and storage fungi in columns of wheat- II. . 7643

## SITOTROGA

- Effectiveness of mixtures of acrylonitrile and carbon tetrachloride against three pests of stored corn. 7055

## SKIN DISEASES

- Labrador plague . 7281

## SKUNKS

- Fluorescent antibody studies for rabies in wildlife. 7163

- Skunks and cows are rabies threat in Iowa. 7172

- Wildlife rabies increases. 7180

- Effect of rabies virus inoculated into foxes and skunks. 7207

## SLAUGHTERHOUSES

- Salmonellosis in slaughterhouses in Israel. 7375

## SMDC

- Effect of SMDC on germination, plant growth, and fusarium wilt incidence of cumin (Cuminum cyminum). 6805

## SNOG

- Ozone injury to the foliage of Pinus ponderosa. 6819

## SMUT (ONIONS)

- The haploid behavior of Urocystis colchici teliospores. 7725

## SNAILS

- Leucoderma-like disease in the culture of giant African snail Achatina fulica Bowdich. 7134

## SNOW BLIGHT (CONIFERAE)

- Pathogenicity of Phacidium abietis. . 6911



# SUBJECT INDEX

## SOIL TEMPERATURE

### SOCIETIES

Abstracts of papers accepted for presentation at the fifty-fifth annual meeting of the American Phytopathological Society, Amherst, Mass., August 26, 27, 28, 29, 1963.

6690

### SODIUM

Decomposition of sodium N-methyldithiocarbamate in soil.

7748

### SODIUM CYANIDE

The effect of insecticides on transamination in the american cockroach.

6587

### SODIUM FLUORIDE

Effects of sodium fluoride on growth of some pathogenic fungi.

6943

Effect of fluorides in cattle.

7365

### SODIUM FLUOSILICATE

Salt-marsh caterpillar control on cotton in Arizona.

7118

### SODIUM HYPOCHLORITE

Hairy root (*Agrobacterium rhizogenes*) of field roses.

6829

### SODIUM MONOFLUOROACETATE

Control of thar (*Hemitegrus jemlahicus*), evaluation of a poisoning technique.

7689

### SODIUM N-METHYLDITHIOCARBAMATE

Decomposition of sodium N-methyldithiocarbamate in soil.

7748

### SODIUM ORTHOARSENATE

The effect of insecticides on transamination in the american cockroach.

6587

### SODIUM ORTHOPHENYLPHENATE

Effect of ingested disinfectants on chicks.

7247

### SODIUM SULFITE

A simple test for deprivation of colostrum in piglets.

7292

### SODIUM THIOSULFATE

Arsenical poisoning of racehorses.

7279

### SOIL AERATION

Growth inhibition of *Phytophthora cinnamomi* by soil diffusates on agar medium.

6946

### SOIL AIR

Some factors that influence the deactivation of atrazine in soil.

7654

### SOIL AMENDMENTS

Fusarium wilt (race2) of tomato0 effect of lime and micro-nutrient soil amendments on disease development.

6775

### SOIL BACTERIA

Fungistatic effects of a soil bacterium on conidia and hyphae of *Helminthosporium sativum*.

6842

Decomposition of 2,4-D and related phenoxyacetic acids by an *Arthrobacter* species.

7658

### SOIL CATION EXCHANGE

The mechanism of the interaction between soil organic matter and herbicide toxicity and the influence of pH on herbicide phytotoxicity.

7698

### SOIL CHEMISTRY

The influence of selected nematode species and number of consecutive plantings of corn and sorghum on forage production, soil, and water use efficiency.

7087

### SOIL CONTAMINATION

Some factors that influence the deactivation of atrazine in soil.

7654

Pesticides and the soil fauna. I. effects of aldrin and DDT in an arable field.

7656

Dipyridylum residues in an aquatic environment.

7662

### SOIL EXTRACTS

Plant extracts, residues, and soil minerals in relation to competition of quackgrass (*Agropyron repens*) with oats and alfalfa.

7128

### SOIL FAUNA

Pesticides and the soil fauna. I. effects of aldrin and DDT in an arable field.

7656

### SOIL FUMIGATION

Control of the charcoal root disease of white fir by fall soil fumigation.

6913

Fertilizer and soil-fumigation effects on *Pythium splendens* in south Florida.

6934

Control of *Pythium* damping-off of melons by simultaneous seeding and soil fumigation with chloropicrin.

6961

Increase of European corn borers following soil application of large amounts of dieldrin.

7028

Population dynamics and fumigation studies of certain nematodes associated with roots of wheat in Nebraska.

7101

### SOIL FUNGI

Trichlorobenzene as a soil toxicant against four wood-decaying soil fungi.

6735

Effect of the soil carbon nitrogen ratio on soil fungi.

6778

Mechanism of soil fungistasis.

6787

Fungitoxicity of sterilized soil inoculated with soil microflora.

6799

Effect of fungicides on the respiration of three species of soil fungi.

6941

The mode of action of diphenamid (N, N-dimethyl 2, 2-di-phenylacetamide) in plants.

7126

### SOIL LEACHING

The effect of oils on herbicidal activity of atrazine and linuron and of waxes and oils on the movement of EPTC in soil.

7657

### SOIL MICROORGANISMS

Mechanism of soil fungistasis.

6787

### SOIL MOISTURE

Postinfection development of wheat bunt in relation to controlled soil moisture.

6860

Influence of soil and moisture on the beet webworm, *Loxostege sticticalis*, and its parasites.

7112

Some factors that influence the deactivation of atrazine in soil.

7654

### SOIL ORGANIC MATTER

The mechanism of the interaction between soil organic matter and herbicide toxicity and the influence of pH on herbicide phytotoxicity.

7698

### SOIL SERIES

Effects of *Meloidogyne* spp. and *Tylenchorhynchus claytoni* on pea wilt incited by *Fusarium oxysporium* f. *pisi* race 1.

6732

### SOIL STERILIZATION

Fungitoxicity of sterilized soil inoculated with soil microflora.

6799

Addition of fungal cell-wall components to soil for biological disease control.

6822

### SOIL TEMPERATURE

*Pseudomonas caryophylli* in carnation. I. Relation of soil temperature to symptom expression.

6734

Influence of soil temperature on a crown rot disease of parsley caused by *Phytophthora parasitica*.

6769

Some factors that influence the deactivation of atrazine in soil.

7654

# SUBJECT INDEX

## SOIL-BORNE PLANT DISEASES

### SOIL-BORNE PLANT DISEASES

Addition of fungal cell-wall components to soil for biological disease control. 6822

A soil-borne virus disease of pepper in California. 6852

### SOILS

A sampling technique for estimating populations of small arthropods in soil and vegetation. 6455

BHC translocation from treated soil and the effect on growth of red clover. 6686

Influence of host and nonhost plants upon populations of *Thielaviopsis basicola* in soil. 6704

Fungi attacking seeds in dry seed-beds. 6759

Effect of the soil carbon nitrogen ratio on soil fungi. 6778

Persistence of *Corynebacterium insidiosum* in soil. 6833

Inoculum potential and effective fungicide dosage in soil. 6869

A method for evaluating soil fungicides. 6939

Streptomycin resistance -- a technique for the direct assay of potato scab organisms from soil. 6953

Saprophytism and persistence in soil by *Phytophthora cinnamomi*. 6979

Soil injection as a means of applying systemic acaricides to fruit trees. 6997

The fate of phorate in soils. 7008

Effect of lime applications to soil on Japanese beetle larval populations. 7048

Effects of soil insecticides on apple trees and resulting effect on mite nutrition. 7053

Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition. 7054

Soil treatments in lieu of spraying for plum curculio control in peach orchards. 7063

Influence of soil and moisture on the beet webworm, *Loxostege sticticalis*, and its parasites. 7112

Persistence of DDT, aldrin, and lindane in some midwestern soils. 7672

Epoxidation of aldrin and heptachlor in soils as influenced by autoclaving, moisture, and soil types. 7673

Spore germinability in soil as an inherent character of *Cochliobolus sativus*. 7706

Influence of oat and alfalfa residues on soil respiration, fungistasis, and survival of *Verticillium albo-atrum*. 7723

Bioassay methods for 4-amino-3,5,6-trichloropicolinic acid. 7742

Release of methylisothiocyanate from soils treated with Mylone (3,5-dimethyl-tetrahydro-1,3,5,2H thiadiazine-2-thione). 7744

Decomposition of sodium N-methyldithiocarbamate in soil. 7748

### SOLANUM

Detection of the tobacco vein necrosis strain of potato virus Y in *Solanum cardenasii* and *S. andigenum* introduced into the United States. 6776

Release of ribonucleic and amino acids by *Phytophthora*. 7745

### SOLANUM NIGRUM

An evaluation of *Solanum nigrum* and *Physalis minima* as suspects of *Xanthomonas vesicatoria*. 6792

### SOLENOPSIS

Insecticidal baits for control of the imported fire ant, *Solenopsis saevissima richteri*. 7571

### SOLUBILIZATION TECHNIQUE

DDT-DEHYDROCHLORINASE iii. Solubilization of insecticides by lipoprotein. 6579

### SOLVENTS

The biological evaluation of spray additives and solvents with *Blattella germanica* (Linn) and *Periplaneta americana* (Linn.). 6639

### SOPHOPHORA

Drosophilid survey of India. iii. the Drosophilida of Kashmir Valley. 6466

### SORGHUM

Screening sorghum varieties for resistance to the covered kernel smut fungus in Iraq. 6936

The effect of phorate applied to seed on the growth, development and insects attacking grain sorghum. 7005

The influence of selected nematode species and number of consecutive plantings of corn and sorghum on forage production, soil, and water use efficiency. 7087

Influence of tillage, row spacing, and atrazine on sorghum and weed yields from nonirrigated sorghum across Nebraska. 7120

Response of selected and random plantings of Johnsongrass (*Sorghum halepense*) to dalapon. 7124

Germination of cereal, sorghum, and small legume seeds after fumigation with hydrogen phosphide. 7645

### SOUTH DAKOTA

The in vivo activity of several systemic insecticides against cattle grubs in South Dakota. 7582

### SOUTH FLORIDA

Brief history of aphid control on potatoes in south Florida, 1946-59. 7079

### SOUTHWESTERN COTTON RUST

Environmental and other factors influencing development of southwestern cotton rust (*Puccinia staksmanii*). 6708

### SOYBEANS

Variability in pathogenicity in the bacterial blight pathogen of soybeans. 6731

Induced susceptibility in soybean plants genetically resistant to *Phytophthora sojae*. 6782

Resistance of soybeans to three *Phytophthora* species due to the production of a phytoalexin. 6783

Nature of resistance of soybeans to three *Phytophthora* species. 6784

Movement of tobacco necrosis virus in systemically infected soybeans. 6867

Interaction of the soybean mosaic and bean pod mottle viruses infecting soybeans. 6873

Observations on soybean insects in Maryland. 7051

Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition. 7054

Survival of encysted eggs and larvae of the soybean cyst nematode, *Heterodera glycines*, ingested by swine. 7632

Some factors that influence the deactivation of atrazine in soil. 7654

Sevin residues on soybeans following its use for armyworm control. 7669

### SPANISH GYPSY MOTHS

Laboratory method for screening compounds as attractants to gypsy moth males. 6494



# SUBJECT INDEX

## STEM ROT (PEANUTS)

- SPERMATOGENESIS**  
Correlation between sperm redundancy and chiasma frequency. 6669
- SPERMATOZOA**  
The spiral thread. 6563
- SPHACELOTHECA REILIANA**  
Suppression of corn head smut by in-furrow applications of pentachloronitrobenzene. 6747
- SPHACELOTHECA SORGHI**  
Screening sorghum varieties for resistance to the covered kernel smut fungus in Iraq. 6936
- SPIDER VENOM**  
Effect of *Latroectus mactans tredecimguttatus* venom on the crayfish stretch receptor neurone. 7692
- SPIDERS**  
*Loxosceles reclusa* in southern California. 6472
- SPINACH**  
Beet ring mottle disease. 6738  
Nicotine residues in field-treated cauliflower, celery, green beans, kale, mustard greens and spinach. 7661
- SPINDLE TUBER (POTATOES)**  
Symptomless hosts of the potato spindle tuber virus (PSTV). \* 6837  
An improved technique for inducing diagnostic symptoms in tomato infected by potato spindle tuber virus. 6959
- SPIRAL THREAD**  
The spiral thread. 6563
- SPIRAMYCIN**  
Chronic rhinitis in cats. 7275
- SPIROCHETOSIS**  
Ticks in the united states serve as vectors of disease. 7187
- SPODOPTERA**  
The beet armyworm, *Spodoptera exigua*, an economic pest of citrus in California. 6982
- SPORE GERMINATION**  
Inhibition of germination of spores of *Alternaria porri* f. *sp. solani*. 6874  
Sporangial germination of *Sclerospora graminicola* and inoculation of *Pennisetum glaucum*. 6882  
Respiratory activity and enzymes for glucose catabolism in fungus spores. 7704  
Spore germinability in soil as an inherent character of *Cochliobolus sativus*. 7706  
Spore germination and carbon metabolism in *Fusarium solani*. i. requirements for spore germination. 7709  
In vitro sporidial germination of *Cronartium fusiforme*. 7716
- SPORES**  
The mode of action of 2,6 dichloro-4-nitroaniline in *Rhizopus arrhizus* spores. 7729
- SPORULATION**  
Effect of biotin on growth and sporulation of *Verticillium albo-atrum*. 6777  
Factors affecting growth, sporulation, pathogenicity, and dissemination of *Leptosphaerulina briosiana*. 6804  
Autumn and winter sporulation by basidiocarps of *Pomes annosus*. 6871
- SPOTTED WILT (TOMATOES)**  
Multiplication of *Xanthomonas vesicatoria* on tomato seedlings. 6796
- SPRAYING**  
The biological evaluation of spray additives and solvents with *Blattella germanica* (Linn) and *Periplaneta americana* (Linn.). 6639
- Screening tests with synthetic compounds as synergists for house fly sprays. 6682
- First and second year effects on *Cytospora* canker disease of Italian prune trees sprayed with four concentrations of cycloheximide thiosemicarbazone. 6764
- Effects of an aerial DDT spray on aquatic insects in Connecticut. 7016
- Soil treatments in lieu of spraying for plum curculio control in peach orchards. 7063
- Organophosphate systemics as sprays and feed additives for cattle grub control. 7577
- Studies on the metabolism and residues of P32-labeled Delnav in a Hereford steer. 7676
- Residue studies of livestock sprays containing Sevin. 7678
- SPRAYING EQUIPMENT**  
Chemical control of bacterial blights of dry field beans in Michigan by foliage sprays applied by ground and air equipment. 6881
- SPRING BLACK STEM (ALFALFA)**  
Behavior of *Phoma herbarum* var. *medicaginis* on resistant and susceptible species of medicago. 6702  
Spring black stem of alfalfa in relation to temperature, moisture, wounding, and nutrients and some observations on pathogen dissemination. 6866
- SQUIRRELS**  
Red squirrel disease. 7293
- STALK ROT (CORN)**  
Effect of crop rotation on yields, stalk rot, and root rot of corn. 6964
- STALK SHREDDING**  
Stalk shredding and plowing as methods for controlling the pink bollworm, *Pectinophora gossypiella*. 7083
- STAPHYLOCOCCUS**  
Phage typing of *Staphylococcus aureus*. 7169  
Procaine as an antibiotic and antifungal agent. 7189  
Detection of antibodies to *staphylococcus aureus* in cattle. 7201  
Evaluation of bacterins for control of swine abscesses. 7276  
Identification and persistence of phage types of *Staphylococcus aureus* in dairy herds in florida. 7291  
The effect of 2 hepta-5-methylbenzimidazole and hydrochloric acid on the growth of microflora found on poultry carcasses. 7652
- STAPHYLOCOCCUS AUREUS**  
Inhibition of enzymes by the anthocyanin malvidin-3-monoglucoside. 7730
- STATISTICAL DISTRIBUTIONS**  
The shallot aphid in the pacific northwest. 6452
- STATISTICS**  
Measuring the surface area of apples for expression of pesticide residues. 7666
- STEM CANKER (BIRDSFOOT TREFOIL)**  
Host-parasite relations of *Stemphylium* leafspot and stem canker of birdsfoot trefoil (*Lotus corniculatus*). 6737
- STEM PITTING (APPLES)**  
The effect of dapple apple and stem pitting on apple tree growth and yields in New Hampshire over a fourteen-year period. 6868
- STEM ROT (PEANUTS)**  
Variation in susceptibility to *Sclerotium rolfsii* among peanut varieties. 6755

# SUBJECT INDEX

## STEM RUST (WHEAT)

### STEM RUST (WHEAT)

Inheritance of stem rust resistance in two wheat varieties, Marquis and Kota. 6706

Genetic model for physiologic studies of mechanisms governing development of infection type in wheat stem rust. 6876

### STEMPHYLLIUM

Host-parasite relations of Stemphylium leafspot and stem canker of birdsfoot trefoil (*Lotus corniculatus*). 6737

Stemphylium leafspot of Echeveria, Kalanchoe, and Sedum. 6916

### STEMPHYLLIUM

Stemphylium leafspot of safflower. 6870

### STEMS

Short-stem condition in Lambert cherries. 6693

### STEPHANITIS

Systemic insecticides for control of scales, leaf miners, and lace bugs. 7059

### STEPHANURUS DENTATUS

Swine kidney worm persistent and resistant. 7590

### STERILITY

Suspected synthetic oestrogen poisoning in mink. 7369

Abortion and infertility in sows in Ireland apparently due to infection by *Leptospira canicola*. 7422

### STERILIZATION

Use of insects for their own destruction. 6672

### STINKING SHOOT (WHEAT)

Postinfection development of wheat bunt in relation to controlled soil moisture. 6860

Time of year of infection of winter wheat by the dwarf bunt fungus. 6862

A method of using mycelial, monosporial isolates of *Tilletia controversa* in pedigreed hybrid crosses. 6908

### STOMACH

Surgical interference in torsion of the canine stomach. 7366

### STOMOPTERYX NERTERIA

Two new species of parasites reared from *Stomopteryx nertia* (Meyrick) (Lepidoptera, Gelechiidae). 6615

### STOMOXYS

Development of a synthetic medium for aseptic rearing of larvae of *Stomoxys calcitrans* (L.). 7567

Use of an animal membrane in the evaluation of chemical repellents against the stable fly. 7568

### STORAGE

Effect of methyl bromide and hydrocyanic acid fumigation on the germination of flax seeds. 7650

### STORAGE DISEASES

The relation between storage molds and damage in high-moisture rice in aerated storage. 6894

Orange stain, a storage disease of rice caused by *Penicillium puberulum*. 6895

Biphenyl-resistant citrus green mold reported in Florida. 6914

### STORED PRODUCTS

Effectiveness of mixtures of acrylonitrile and carbon tetrachloride against three pests of stored corn. 7055

Stored-grain insects and their control in New Jersey. 7647

Preliminary evidence of resistance of high-amylose corn to the Angoumois grain moth. 7648

### STRAWBERRIES

A new crown rot of strawberry plants caused by *Colletotrichum fragariae*. 6772

Starvation tests with larvae of the cinnabar moth. 7043

### STREAK (PEAS)

Purification, morphology, and biochemical characterization of the Wisconsin pea streak virus. 6872

A new pea streak virus related to red clover vein mosaic virus (RCVMV). 6977

### STREAK MOSAIC (WHEAT)

Relation of *Agropyron repens* mosaic and wheat streak mosaic virus. 6922

### STREAMS

Oxygen balance in a stream receiving domestic and oil refinery effluents. 7655

### STRELITZIA

Bacterial wilt of bird-of-paradise caused by *Pseudomonas solanacearum*. 6863

### STREPTOCOCCUS

Evaluation of bacterins for control of swine abscesses. 7276

Mastitis control proves its worth in New York. 7481

Mastitis control programs effective in Connecticut. 7516

### STREPTOMYCES

Antibiotic production by *Streptomyces* sp. in corn rhizosphere. 6864

Streptomycin resistance -- a technique for the direct assay of potato scab organisms from soil. 6953

### STREPTOMYCIN

Streptomycin resistance -- a technique for the direct assay of potato scab organisms from soil. 6953

Studies on the dietary requirement and interaction of magnesium with antibiotics in turkeys to 4 weeks of age. 7141

Salmonella resistance increases. 7424

### STREPTOTRICHOSIS

Observations on the effects of flies and humidity on the natural lesions of streptothricosis. 7409

Streptothricosis in cattle. 7480

Bovine streptothricosis Production of lesions by the bites of the tick *Amblyomma variegatum*. 7620

The effects of ectoparasites and humidity on natural lesions of streptothricosis. 7622

### STRIPE RUST (WHEAT)

Three distinct pathogenic types of stripe rust in the western states. 6861

Overwintering of stripe rust in winter wheat in Montana. 6904

### STRONGYLOIDES

Thiabendazole as an anthelmintic in research monkeys. 7606

### STRONGYLUS

Treatment of Strongyles in horses. 7525

### STUNT (CITRANGE)

Dodder transmission of citrange stunt virus, a virus associated with tatter leaf of citrus. 6952

### STUNT (COWPEAS)

Dodder transmission of citrange stunt virus, a virus associated with tatter leaf of citrus. 6952

### STYLETS

Flow relationships for hemipterous stylets. 6593

### STISANUS

Effect of the soil carbon nitrogen ratio on soil fungi. 6778



# SUBJECT INDEX

		SWINE
SUCCINOXIDASE		
Succinoxidase activity in two species of Bracon (Hymenoptera, Braconidae).	6595	
SUCCINYLCHOLINE CHLORIDE		
Suspected myasthenia gravis in a dog.	7336	
SUCROSE		
Translocation of C14-labeled compounds in cotton and oaks.	7708	
SUGAR		
Studies on levels of reducing sugars and hydrolytic enzymes in relation to Botrytis head rot on safflower.	6703	
SUGAR BEETS		
Field experiments on sugar-beet downy mildew (Peronospora farinosa).	6717	
Beet ring mottle disease.	6738	
Experiments on control of the sugar-beet wireworm in southern California bean fields.	7111	
Darkness and the activity of diguat and paraquat on tomato, broad bean and sugar beet.	7119	
Isolation and characterization of a germination inhibitor from sugar beet fruit.	7721	
SUGARCANE		
The reproductive system of the pink sugarcane mealybug, Saccharicoccus sacchari Cockerell (Homoptera, Pseudococcidae).	6665	
Effect of heat treatment of sugarcane for control of ratoon stunting disease (RSD) on spread of mosaic.	6981	
An evaluation of atrazine, simazine, monuron and diuron on ten Hawaiian sugar cane plantations.	7132	
SUGARS		
Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition.	7054	
Effects of relative humidity and temperature on the degradation of peanut sugar and oil by Aspergillus flavus.	7714	
SULFAMETHAZINE		
An outbreak of malignant catarrh among the Pere David deer.	7499	
SULFAGUINOXALINE		
A mixture of diaveridine and sulfaguinoxaline as a coccidiostat for poultry. I. Preliminary studies on efficiency against Eimeria tenella and E. necatrix infections, and on toxicity in poultry.	7270	
A mixture of diaveridine and sulphaguinoxaline as a coccidiostat for poultry.	7604	
SULFUR		
Sulphur poisoning in ewes.	7547	
SULPHENONE		
Evaluation of chemicals for control of a spider mite complex on cherry and peach.	7003	
SUNFLOWERS		
Predisposition to powdery mildew.	6975	
SURGERY		
Surgical treatment of chronic otitis in a Poodle.	7373	
SURVEYS		
A limnological investigation of the Aufwuchs community in two mainstem Missouri River reservoirs.	6451	
The black flies (Diptera: Simuliidae) of western Massachusetts.	6457	
Surveys for nosema disease of honey bees in California.	7021	
A three-year overwintering study of the spotted alfalfa aphid.	7061	
SWAINSONIA		
Characteristics and control of swainsonpea.	7130	
SWAYBACK		
A condition in the goat resembling swayback in lambs.	7237	
SWEDE TURNIPS		
Control of root maggots in swede turnips in Newfoundland with heptachlor and aldrin and the effect on parasites and overwintering pupae.	7039	
SWEETCLOVER		
Pollination of red clover in Minnesota.	6611	
SWEETCORN		
Hyperodes humilis, a new pest of sweet corn in the everglades, and its control.	7013	
A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn.	7084	
SWEETPOTATOES		
Note on the biology of Acraea bonasia Fabricius from eastern Nigeria (Lepidoptera, Nymphalidae).	6561	
Anatomical aspects of resistance in sweetpotato to Fusarium wilt.	6956	
Sweetpotato varietal reaction to species and races of root-knot nematodes.	7089	
SWINE		
Common problems in the pig.	7144	
Hog cholera is on the way out.	7145	
Isolation of enteroviruses from intestinal tract of swine.	7155	
ISU veterinarians suspect two weeds as cause of seasonal swine disease.	7157	
Polyserositis-arthritis complex in swine.	7182	
Rift valley fever in calves, goats and pigs.	7194	
Complement-fixation test for detecting Japanese encephalitis virus.	7198	
Purification of swine enteroviruses and swinepox viruses.	7218	
Candidiasis in pigs in northwest Wisconsin.	7235	
Pig diseases in the Rhodesias.	7241	
Porcine gastric ulcers in the United States: a review.	7263	
Evaluation of bacterins for control of swine abscesses.	7276	
Polyarthritis and epiphyseolysis of pigs in England.	7290	
Prenatal hog cholera infection a potential source of hog cholera.	7297	
Cerebellar hypoplasia, hypomyelinogenesis, and congenital tremors of pigs, associated with prenatal hog cholera vaccination of sows.	7298	
The use of Thiofuradene as a growth stimulant and anthelmintic in the production of pork in the Bahamas.	7302	
Toxoplasmosis in pigs. I. The influence of age on the pathogenicity of Toxoplasma gondii for pigs.	7304	
Toxoplasmosis in pigs. II.- Experiments on the pathogenicity of Toxoplasma gondii for pigs infected by different routes.	7305	
Conferences appraise hog cholera eradication efforts.	7319	
The enteropathogenic effect of Escherichia coli in rabbits and pigs.	7324	
Unusual cerebellar conditions in pigs. Part II. Cerebellar Hypoplasia in pigs.	7325	

# SUBJECT INDEX

## SWINE DYSENTERY

- Unusual cerebellar conditions in pigs. Part 1. Cerebellar herniation associated with vitamin A deficiency. 7326
- Lactogenic immunity to transmissible gastroenteritis of swine. 7335
- Status of inactivated vaccines for hog cholera. 7352
- Hepatitis cysticercosa causing sudden death in a pig. 7405
- A swine brucellosis epizootic. 7407
- An outbreak of Aujeszky disease in pigs in Lincolnshire. 7410
- The characterization of a causative agent of virus pig pneumonia. 7413
- Radiostrontium toxicity in miniature swine. 7420
- Abortion and infertility in sows in Ireland apparently due to infection by *Leptospira canicola*. 7422
- Abortion in the sow due to infection by *Leptospira canicola* - A preliminary report. 7428
- Iron deficiency anemia as a cause of stillbirths in swine. 7437
- Comparison of pathogenicity of various isolates of *Bordetella bronchiseptica* in young pigs. 7488
- Clinical appraisal of an avirulent oral erysipelas vaccine. 7492
- Breakdowns in swine-fever vaccinated herds. 7496
- Observations on pathogenicity and immunogenicity of a cell-culture-modified foot-and-mouth disease virus. 7498
- Mastitis, metritis and diarrhea in swine. 7514
- The pathogenesis of gastro-enteritis associated with *Escherichia coli*. 7526
- Transmission and characterization of edema disease of swine. 7535
- Influence of porcine transmissible gastroenteritis on chlortetracycline blood values. 7540
- Toxaphene residues in hogs. 7578
- Swine ascarids infect cattle. 7589
- Swine kidney worm persistent and resistant. 7590
- Trichinosis declines. 7625
- Survival of encysted eggs and larvae of the soybean cyst nematode, *Heterodera glycines*, ingested by swine. 7632
- SWINE DYSENTERY**  
Studies on the pathogenesis of *Vibrio coli* infection in swine. 7541
- SWINE HOUSES**  
House fly control in pig parlors. 7566
- SWINEPOX**  
Purification of swine enteroviruses and swinepox viruses. 7218
- SYMBIOSIS**  
Symbiotic interrelationships between microbes and ambrosia beetles. II. the organs of microbial transport and perpetuation in *Trypodendron betule* and *T. retusum* (Coleoptera, Scolytidae). 6477
- On the in-vitro culture of intracellular symbiotes of cockroaches. 6497
- SYMPOSIA**  
Symposium on requirements and interpretations of biometeorological observations. invitational papers presented at the fifty-fourth annual meeting of the American Phytopathological Society. Corvallis, Oregon, August 26-29, 1962. 6691
- Symposium on root diseases of forest trees. invitational papers presented August 27, 1962, at the fifty-fourth annual meeting of the American Phytopathological Society at Corvallis, Oregon. 6692
- Summation. 6766
- SYNANTHEDON PICTIPES**  
Thiodan, a promising chemical for control of the lesser peach tree borer. 7038
- SYNAPSES**  
Action of DDT at an insect synapse. 6633
- SYRPHIDAE**  
A preliminary study of the Syrphidae of Oklahoma (Diptera: Syrphidae). 6469
- T, 2,4,5-**  
Characteristics and control of swainsonpea. 7130
- TABANIDAE**  
Dispersal of viable algae and protozoa by horse flies and mosquitoes (Diptera, Tabanidae, Culicidae). 6616
- TABATREX**  
Use of an animal membrane in the evaluation of chemical repellents against the stable fly. 7568
- TABATREY**  
Face fly control. 7564
- TAENIASIS**  
A taeniacide for dogs and cats. 7639
- TAGETES**  
Starvation tests with larvae of the cinnabar moth. 7043
- An inexpensive, versatile oxygen electrode. 7756
- TAGETES ERECTA**  
Effect of root extract of *Asparagus racemosus* and *Tagetes erecta* on hatching of eggs of *Meloidogyne javanica* and *Meloidogyne arenaria*. 7113
- TANNIC ACIDS**  
Antidote for tannic acid poisoning in rabbits. 7191
- Antidote for tannic acid poisoning in rabbits. 7208
- TANYDERIDAE**  
Mouthparts of the biting and blood-sucking type in Tanyderidae and Chironomidae (Diptera). 6521
- TATTER-LEAF (CITRUS)**  
Dodder transmission of citrange stunt virus, a virus associated with tatter leaf of citrus. 6952
- TAXONOMY**  
Effect of urediospore concentration on determination of races of rust fungi. 6733
- Physiological races of *Albugo candida*. 7731
- TBA, 2,3,6-**  
Characteristics and control of swainsonpea. 7130
- TDE**  
Syntheses of the aliphatic deuterium analogs of DDT and TDE and their toxicity and degradation when applied to adult house flies. 6485
- TEATS**  
Ulceration of cow's teats caused by a virus. 7415
- TELIOAPORES**  
Field disease cycle of peppermint rust. 6773
- The haploid behavior of *Urocystis colchici* teliospores. 7725
- TEMPERATURE**  
Effect of temperature on the susceptibility of grubs of *Trogoderma granarium* Everts to pyrethrins. 6534
- The response to temperature of cabbage virus A infection in *Nicotiana glutinosa*. 6758
- Spring black stem of alfalfa in relation to temperature, moisture, wounding, and nutrients and some observations on



# SUBJECT INDEX

## THIABENDAZOLE

- pathogen dissemination. 6866
- Effects of rapid cooling to subzero temperatures on *Meloidogyne hapla* and *M. incognita*. 6887
- Effects of various diurnal temperature profiles on host-parasite reaction of wheat varieties and *Puccinia striiformis*. 6903
- Inhibition of fungi by culture media previously exposed to light. 6954
- Release of inhibited tobacco mosaic virus (TMV) infection by ultraviolet irradiation as affected by time and temperature after inoculation. 6971
- Effects of low temperature on the survival of the alfalfa weevil from Alberta and Utah. 7047
- Effect of temperature and humidity on the fecundity and development of *Cadra cautella* Wlk. in wheat. 7071
- A study of factors influencing the effectiveness of diquat (101 -ethylene-202 -dipyridylum dibromide) for potato vine killing. 7127
- Factors affecting invasion of grains and seeds by *Aspergillus flavus* and effects of the fungus on germination of the seeds. 7644
- Influence of grain moisture and storage temperature on the effectiveness of malathion as a grain protectant. 7649
- Effects of relative humidity and temperature on the degradation of peanut sugar and oil by *Aspergillus flavus*. 7714
- TENEBRIO**  
The suitability of tobaccos for the growth of the cigarette beetle, *Lasioderma serricornis*. 7081
- TENSION**  
Water tensions in plants, an entomological approach. 7037
- TENTHREDINIDAE**  
A substance in some commercial preparations of *Bacillus thuringiensis* var. *thuringiensis* toxic to sawfly larvae. 6631
- TEREPHTHALIC ACID**  
Potentiation of chlortetracycline in laying chickens. 7140
- TERIOAPHIS**  
A biotype of the spotted alfalfa aphid on alfalfa. 7046
- TERMITES**  
Pathogenicity of externally occurring fungi to *Reticulitermes flavipes*. 6634
- Fumigation of buildings to control the dry-wood termite, *Cryptotermes brevis*. 7646
- TERT-BUTYLAMINE**  
Control of *Penicillium* decay of oranges with certain volatile aliphatic amines. 6741
- TETRACYCLINE**  
*Salmonella* resistance increases. 7424
- TETRADIPON**  
Evaluation of chemicals for control of a spider mite complex on cherry and peach. 7003
- Citrus red mites resistant to demeton and ovex and their response to Tedion and Kelthane. 7040
- TETRAHYMENA**  
*Tetrahymena* sp. parasitic in the larvae of *Chilo zonellus* (Swinhoe). 6636
- TETRALOPHA**  
The biology of the pine webworm, *Tetralopha robustella*, in Wisconsin. 7116
- TETRANYCHIDAE**  
A viruslike transovarian factor affecting morphology in spider mites. 6449
- Laboratory studies on the effectiveness of Chipman R-6199 against some cotton pests. 7070
- TETRANYCHUS**  
Selection response and genetics of parathion resistance in the Pacific spider mite, *Tetranychus pacificus*. 6667
- Vectors of alfalfa and bean yellow mosaic viruses in Ladino white clover. 6803
- Soil injection as a means of applying systemic acaricides to fruit trees. 6997
- Evaluation of chemicals for control of a spider mite complex on cherry and peach. 7003
- Observations on soybean insects in Maryland. 7051
- Effects of soil insecticides and absorbents on plant sugars and resulting effect on mite nutrition. 7054
- Control of the two-spotted spider mite on beans with systemic insecticides applied in the soil. 7076
- TETRANYCHUS TELARIUS**  
Structure and pesticidal activities of derivatives of dinitrophenols. III. structure and acaricidal activity of certain carbonates of 2-alkyl-5-methyl-4,6-dinitrophenols and related compounds. 7696
- TETRANYCHUS URTICAE**  
Genetic variation in a two-spotted spider mite, *Tetranychus urticae*, population plateaued by directed selection (*Acarina*, *Tetranychidae*). 6673
- TEXAS**  
Evidence of the overwintering of the greenbug in the Texas panhandle. 6516
- THAB**  
Control of thar (*Hemitaragus jemlahicus*), evaluation of a poisoning technique. 7689
- THEILERIASIS**  
Further attempts to infect animals with *Theileria parva*. 7598
- THELAZIASIS**  
Experience with an anthelmintic. 7613
- THERIOAPHIS**  
Vectors of alfalfa and bean yellow mosaic viruses in Ladino white clover. 6803
- Influence of plant age on the survival of alfalfa varieties differing in resistance to the spotted alfalfa aphid. 7018
- Spotted alfalfa aphid resistance in mature growth of alfalfa varieties. 7019
- A three-year overwintering study of the spotted alfalfa aphid. 7061
- THESES**  
The biological evaluation of spray additives and solvents with *Blattella germanica* (Linn) and *Periplaneta americana* (Linn.). 6639
- Effects of X-rays, tryptophan metabolites, and eye color mutants on the tumor-suppressor system in *Drosophila melanogaster*. 6668
- Some factors that influence the deactivation of atrazine in soil. 7654
- The toxicology of thiodan in several fish and aquatic invertebrates. 7697
- THIABENDAZOLE**  
Thiabendazole and trichinae. 7166
- Thiabendazole as an anthelmintic in cattle and sheep. 7588
- Thiabendazole as an anthelmintic in research monkeys. 7606
- Efficacy of thiabendazole against *Cooperia* spp. and *Ostertagia ostertagi* in cattle. 7631

# SUBJECT INDEX

## THIACETARSAMIDE

### THIACETARSAMIDE

Two-day treatment with Thiacetarsamide for canine heartworm disease. 7378

### THIELAVIOPSIS

Influence of host and nonhost plants upon populations of Thielaviopsis basicola in soil. 6704

Inversion phenomenon induced by nabam derivatives. 6728

Comparison of various isolation media for the enumeration of Thielaviopsis basicola in soil dilution plates. 7727

### THIOATE

Toxicity of organic phosphorus insecticides to horses. 7694

### THIOCARBAMATES

Control of downy mildew of opium poppy by root application of fungicides. 6788

Effect of SMDC on germination, plant growth, and fusarium wilt incidence of cumin (Cuminum cyminum). 6805

Chemical control of bacterial blights of dry field beans in Michigan by foliage sprays applied by ground and air equipment. 6881

The effect of oils on herbicidal activity of atrazine and linuron and of waxes and oils on the movement of EPTC in soil. 7657

### THIOURACIL

Potential of diethylstilbestrol induced aortic ruptures of turkeys with thiouracil. 7509

### THIRAM

Inversion phenomenon induced by nabam derivatives. 6728

Control of Botrytis neck rot of onions by fungicidal dusts and desiccant chemicals. 6779

Inoculum potential and effective fungicide dosage in soil. 6869

The effect of phorate applied to seed on the growth, development and insects attacking grain sorghum. 7005

### THOROUGHBERED HORSES

Cervical and uterine infection in thoroughbred mares. 7348

### THRIPS

Observations on soybean insects in Maryland. 7051

Control of the two-spotted spider mite on beans with systemic insecticides applied in the soil. 7076

### THRIPS TABACI

Studies on the host preference of the onion thrips, Thrips tabaci Lindeman to the varieties of onion. 7073

### THUJA

Pathogenicity of Phacidium abietis. 6911

### THURICIDE

A substance in some commercial preparations of Bacillus thuringiensis var. thuringiensis toxic to sawfly larvae. 6631

### THYROID GLAND

Thyroid dysplasia in the budgerigar. 7242

Toxicity of nitrate nitrogen to cattle. 7423

Effect of melatonin on thyroid hormone secretion rate and feed consumption of female rats. 7444

### TICK PARALYSIS

Ticks in the United States serve as vectors of disease. 7187

### TILLAGE

Influence of tillage, row spacing, and atrazine on sorghum and weed yields from nonirrigated sorghum across Nebraska. 7120

### TILLETIA

A method of using mycelial, monosporial isolates of Tilletia controversa in pedigreed hybrid crosses. 6908

### TIME

Release of inhibited tobacco mosaic virus (TMV) infection by ultraviolet irradiation as affected by time and temperature after inoculation. 6971

### TIPULIDAE

Histological observations on the development of crystalline inclusions of the rickettsial disease of Tipula paludosa Meigen. 6550

### TISSUE CULTURE

Establishment of an insect cell strain persistently infected with an insect virus. 6592

The growth of rabies virus in tissue culture and its use as a living attenuated vaccine for domestic animals. 7224

### TISSUES

Uptake of Helminthosporium victoriae toxin by oat tissue. 6889

Influence of dietary zinc, calcium and vitamin D for hens on zinc content of tissues and eggs and on bone composition. 7137

The macerating enzyme of Rhizoctonia solani. 7701

Production of 3-methyl-6-methoxy-8-hydroxy-3,4-dihydroisocoumarin by carrot root tissue. 7736

### TOBACCO

Synthesis of tobacco mosaic virus forms in nucleus and cytoplasm. 6700

A simple method of measuring rate of plant virus movement from inoculated tobacco leaves to stem tips. 6750

An apparent strain of tobacco rattle virus associated with a yellow spotting of lettuce. 6757

Detection of the tobacco vein necrosis strain of potato virus Y in Solanum cardenasii and S. andigenum introduced into the United States. 6776

Response of plants to air pollutants. II. Effects of ozone concentration and leaf maturity on injury to Nicotiana tabacum. 6815

Calcium nutrition in relation to the black shank disease of tobacco. 6825

Studies on tobacco mosaic virus (tmv) infection of suspended callus cells. 6830

Electron microscopy of tobacco rattle type viruses. allen jr, t l. 6844

Reappraisal of transmission of tobacco mosaic virus by insects. 6845

Free amino acid and amide content of tobacco and oats infected by wildfire and halo blight bacteria. 6851

Movement of tobacco necrosis virus in systemically infected soybeans. 6867

Effects of ultraviolet preinoculation treatment of leaves on subsequent infection by tobacco mosaic virus and TMV. ribonucleic acid. 6899

Inhibition of indoleacetic acid oxidase in tobacco plants infected by Pseudomonas solanacearum. 6900

The nature of stain uptake in ultrathin sections of tobacco mosaic virus. 6901

Tobacco mosaic virus activity and growth of inoculated tobacco secondary single-cell clones. 6907

Effects of some cytokinins on tobacco and their relation to tobacco mosaic virus infection. 6915

An electron microscope study of TMV lesions in Nicotiana glutinosa. 6955

Heat activation of different strains of tobacco mosaic virus



# SUBJECT INDEX

## TOXICOLOGY

- infection on varieties of beans (*Phaseolus vulgaris*). 6970
- Release of inhibited tobacco mosaic virus (TMV) infection by ultraviolet irradiation as affected by time and temperature after inoculation. 6971
- Inter-relationship between whitefly (*Bemisia tabaci* Gien) population and the incidence of leaf curl in bidi tobacco (*Nicotiana tabacum* L) in relation to different planting dates. 7044
- The suitability of tobaccos for the growth of the cigarette beetle, *Lasioderma serricorne*. 7081
- TOMATOES**
- Vancomycin prevents crown gall. 6711
- The role of *Drosophila melanogaster* in the epiphytology of *Geotrichum*, *Rhizopus*, and other fruit rots of tomato. 6716
- Semeiography of *Fusarium* wilt of tomato. 6719
- Fusarium* wilt (race2) of tomato effect of lime and micro-nutrient soil amendments on disease development. 6775
- Multiplication of *Xanthomonas vesicatoria* on tomato seedlings. 6796
- Disinfection of tomato seed infested with *Xanthomonas vesicatoria*. 6797
- Symptomless hosts of the potato spindle tuber virus (PSTV). \* 6837
- Survival of *Xanthomonas vesicatoria* in soil and diseased tomato plants. 6854
- The nature of stain uptake in ultrathin sections of tobacco mosaic virus. 6901
- Studies on the aggregation of tobacco mosaic virus in the ground cytoplasm and chloroplasts of tomato. 6902
- The effect of growth substances on *Verticillium* wilt of tomato plants. 6909
- Stemphylium* leafspot of *Echeveria*, *Kalanchoe*, and *Sedum*. 6916
- An improved technique for inducing diagnostic symptoms in tomato infected by potato spindle tuber virus. 6959
- Effectiveness of insecticides against the European corn borer and green peach aphid on peppers. 7017
- Drosophila* breeding in refuse from tomato canneries. 7031
- Reaction of *Drosophila* to different varieties of tomatoes. 7032
- Observations on the utilization of the hexose monophosphate pathway in nematode-infected roots of tomato. 7088
- Helicotylenchus thornei* n sp (Nematoda, Hoplolaiminae) from a tomato plant field in Ludhiana, Punjab. 7091
- Darkness and the activity of diguats and paraquat on tomato, broad bean and sugar beet. 7119
- The mode of action of diphenamid (N, N-dimethyl 2, 2-diphenylacetamide) in plants. 7126
- Dissipation of malathion residues on tomato and pea. 7679
- TONSILS**
- Tonsillar carcinoma in rural dogs. 7471
- TORDON**
- Bioassay methods for 4-amino-3,5,6-trichloropicolinic acid. 7742
- TORYMUS**
- Biology and control of the apple seed chalcid in North Carolina. 7072
- TOUMAYELLA**
- Natural factors control the pine tortoise scale in the Northeast. 7034
- TOXAPHENE**
- A seasonal study of diapause, reproductive activity and seasonal tolerance to insecticides in the boll weevil. 6496
- Boll weevil susceptibility to toxaphene, endrin, and Guthion in five Alabama localities. 6505
- The effect of insecticides on transamination in the American cockroach. 6587
- Some effects of age, preimaginal habitat, and adult food on susceptibility of boll weevil to certain insecticides. 6983
- The effectiveness of chlorinated hydrocarbon insecticide mixtures for control of resistant and susceptible boll weevils. 6986
- The bean leaf skeletonizer, *Autoplusia egea*, and its control on bush snap beans in the everglades. 7006
- Increased tolerance of the boll weevil and cotton fleahopper to some chlorinated hydrocarbon insecticides in Central Texas in 1958. 7042
- Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California. 7065
- Field tests with various insecticides for the control of *Lygus* bugs and the corn earworm on lima beans. 7066
- Brief history of aphid control on potatoes in south Florida, 1946-59. 7079
- Salt-marsh caterpillar control on cotton in Arizona. 7118
- Chlorinated hydrocarbon insecticides as soil treatments against the eye gnat *Hippelates collusor* (Townsend) in the laboratory. 7576
- Toxaphene residues in hogs. 7578
- TOXICOLOGY**
- Syntheses of the aliphatic deuterium analogs of DDT and TDE and their toxicity and degradation when applied to adult house flies. 6485
- Stability, toxicity, and reaction mechanism with esterases of certain carbamate insecticides. 6509
- Relationship between metabolism and differential toxicity in insects and mice of Diazinon, dimethoate, parathion, and acephion. 6570
- Experiments on prolongation of the life of mosquito larvae by underfeeding. 6581
- Testing of pesticides against cabbage aphid, *Brevicoryne brassicae* Linn. 6622
- Toxicological action of DDT on three species of mosquito larvae. 6658
- Laboratory studies on the toxicity of various insecticides to different stages of the oriental fruit moth. 6988
- Toxicity of cellulose acetate sheeting to leguminous plants. 7026
- O-ethyl S-2(ethylthio)-ethyl alkylphosphonothioates as systemic insecticides. 7035
- Toxicity of BHC to loblolly pine seedlings. 7068
- A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn. 7084
- Toxicity of copper sulfate in beef cattle. 7199
- The responsibilities of veterinary practitioners as to the use of pesticides. 7229
- Effect of ingested disinfectants on chicks. 7247
- Selective toxicity and animal systemic effectiveness of

# SUBJECT INDEX

## TOXINS

- several organophosphates. 7563
- Methods for the evaluation of stable fly toxicants and repellents. 7579
- Toxicity to house fly larvae of droppings from chickens fed insecticide-treated rations. 7584
- Effect of mineral oil solvent on the toxicity and speed of action of malathion. 7686
- Relationships between structure and insecticidal activity of some organotin compounds. 7688
- Pyrethrins and related compounds. iX. alkenbenzyl and benzylbenzyl chrysanthemates. 7690
- The search for veterinary insecticides. iI. carbamates active against sheep blowfly. 7691
- Effect of *Iatrodictus mactans* *tredecimguttatus* venom on the crayfish stretch receptor neurone. 7692
- Toxicity of organic phosphorus insecticides to horses. 7694
- The effectiveness of EDTA as a fish preservative. 7695
- Structure and pesticidal activities of derivatives of dinitrophenols. iII. structure and acaricidal activity of certain carbonates of 2-alkyl-5-methyl-4,6-dinitrophenols and related compounds. 7696
- The toxicology of thiodan in several fish and aquatic invertebrates. 7697
- Toxicological aspects of 2,2-dichlorovinyl dimethyl phosphate (DDVP) in cows, horses, and white rats. 7699
- Toxic chemicals. 7734
- Toxic chemicals. 7735
- Toxicity of organic fluorine compounds. 7739
- Purification of the selective toxin of *Periconia circinata*. 7755

## TOXINS

- Uptake of *Helminthosporium victoriae* toxin by oat tissue. 6889
- The effect of staphylococcal toxins on ruminant erythrocytes treated with diffusible substances formed by *corynebacteria*. 7312
- Purification of the selective toxin of *Periconia circinata*. 7755

## TOXOCARA

- The prenatal migration of *Toxocara canis* larvae and their relationship to infection in pups. 7397

## TOXOPLASMOSIS

- Toxoplasmosis in pigs. I. The influence of age on the pathogenicity of *Toxoplasma gondii* for pigs. 7304
- Toxoplasmosis in pigs. II.- Experiments on the pathogenicity of *Toxoplasma gondii* for pigs infected by different routes. 7305
- Toxoplasmosis in mink. 7544
- Further studies on toxoplasmosis and ovine abortion in Yorkshire. 7596
- Ovine abortion and toxoplasmosis in the East Midlands. 7597

## TOXOPTERA

- Long-range aerial transport of the harlequin bug and the greenbug into Minnesota. 6456
- Evidence of the overwintering of the greenbug in the Texas panhandle. 6516
- Greenbug dispersal and distribution of barley yellow dwarf virus in Wisconsin. 6812

## TRANSAMINATION

- The effect of insecticides on transamination in the American cockroach. 6587

## TRAPAEOLUM MAJUS

- Interaction of growth regulators in the senescence of nasturtium leaf disks. 7702

## TREE DISEASES

- Summation. 6766

## TREES

- Symposium on root diseases of forest trees. Invitational papers presented August 27, 1962, at the fifty-fourth annual meeting of the American Phytopathological Society at Corvallis, Oregon. 6692

## TREMATODA

- Bacillary hemoglobinuria (redwater disease) in Florida. 7617

## TRIATOMA

- Natural immunity of the bug *Triatoma infestans* to the protozoan *Trypanosoma rangeli*. 6666

## TRIBOLIUM

- Effectiveness of mixtures of acrylonitrile and carbon tetrachloride against three pests of stored corn. 7055
- The suitability of tobaccos for the growth of the cigarette beetle, *Lasioderma serricornis*. 7081
- Dosimetry for studies on the radiobiology of *Tribolium castaneum* using the Van de Graaff electron accelerator. 7754

## TRICHINAE

- Thiabendazole and trichinae. 7166

## TRICHINELLA

- Incidence of infection with *Trichinella spiralis* in dogs. 7611

- Trichinosis declines. 7625

## TRICHINOSIS

- Trichinosis declines. 7625

## TRICHLORFON

- Potential use of Dylox and other insecticides in a control program for field crop pests in California. 6687
- Effects of Dylox and other insecticides on entomophagous insects attacking field crop pests in California. 7065
- Control of the northern fowl mite, *Ornithonyssus sylviarum* (C. + F.), with ronnel, Bayer 113/59, and Bayer 21/199. 7573

- Toxicity to house fly larvae of droppings from chickens fed insecticide-treated rations. 7584

- Toxicity of organic phosphorus insecticides to horses. 7694

## TRICHLORIUM

- A comparison of the toxicity of insecticides for the control of corn earworm on sweet corn. 7084
- Salt-marsh caterpillar control on cotton in Arizona. 7118

## TRICHLOROBENZENE

- Trichlorobenzene as a soil toxicant against four wood-decaying soil fungi. 6735

## TRICHLORONITROMETHANE

- Population dynamics and fumigation studies of certain nematodes associated with roots of wheat in Nebraska. 7101

## TRICHODERMA VIRIDE

- The mode of action of diphenamid (N, N-dimethyl 2, 2-diphenylacetamide) in plants. 7126

## TRICHOPHYTON

- Dermatophytosis (ringworm) pathogenesis, diagnosis, and treatment. 7250



## SUBJECT INDEX

## TURTLES

- TRICHOPLUSIA**  
*Spicaria rileyi* (Farlow) Charles and *Aspergillus flavus* Link, entomogenous fungi of the cabbage looper, *Trichoplusia ni* (Hubner), in Indiana and Wisconsin. 6487  
 Pathology of a nuclear polyhedrosis virus of the cabbage looper, *Trichoplusia ni* (Hubner). 6522  
 A new nuclear polyhedrosis of the cabbage looper, *Trichoplusia ni*. 6544  
 Microbial control of two cabbage insects. 6588  
 Thermal inhibition of certain polyhedrosis virus diseases. 6649
- TRICHOPLUSIA NI**  
 Bionomics and control of certain *Plusiinae* and studies of an associated nuclear polyhedrosis virus. 6992
- TRICHOPTERA**  
*Membracidae* attracted to black light. 6590
- TRICHOSTRONGYLOSIS**  
 Field trials comparing the anthelmintic effect of Ruelene (4-tert-butyl-2-chlorophenylmethyl methylphosphoramidate) with that of phenothiazine. 7601
- TRICHOSTRONGYLUS**  
 Thiabendazole as an anthelmintic in cattle and sheep. 7588
- TRICHURUS**  
 Thiabendazole as an anthelmintic in research monkeys. 7606
- TRIETHYL CHLORIDE**  
 Relationships between structure and insecticidal activity of some organotin compounds. 7688
- TRINIDAD**  
 Serological relationship between bean pod mottle virus and cowpea mosaic viruses from Arkansas and Trinidad. 6906
- TRIPHENYLTETRAZOLIUM CHLORIDE**  
 Succinoxidase activity in two species of *Bracon* (Hymenoptera, *Braconidae*). 6595
- TROGODERMA GRANARIUM**  
 Effect of temperature on the susceptibility of grubs of *Trogoderma granarium* Everts to pyrethrins. 6534
- TRYPANOSOMA RHODESIENSE**  
 Infectivity of *Trypanosoma rhodesiense* to tsetse flies fed through animal membranes. 6681
- TRYPANOSOMIASIS**  
 Prophylaxis against trypanosomiasis in Zebu cattle. IV. A field trial of metamidium and isometamidium. 7482  
 Experimental *Trypanosoma congolense* infection in a horse. 7519  
 Prophylactic activity of Berenil against trypanosomes in treated cattle. 7537  
 Prophylaxis against trypanosomiasis in Zebu cattle. III. Potentiation trials and a trial of R.D. 2902 in an area of medium trypanosome risk. 7630
- TRYPETIDAE**  
 Studies on the nutritional requirements of the fruit fly *Dacus cucurbitae* Coquillett (Diptera, *Trypetidae*). III. Development of a synthetic medium for *D. cucurbitae* larvae. 6513
- TRYPODENDRON BETULAE**  
 Symbiotic interrelationships between microbes and ambrosia beetles. II. the organs of microbial transport and perpetuation in *Trypodendron betule* and *T. retusum* (Coleoptera, *Scolytidae*). 6477
- TRYPODENDRON RETUSUM**  
 Symbiotic interrelationships between microbes and ambrosia beetles. II. the organs of microbial transport and perpetuation in *Trypodendron betule* and *T. retusum* (Coleoptera, *Scolytidae*). 6477
- TRYPTOPHAN**  
 Effects of X-rays, tryptophan metabolites, and eye color mutants on the tumor-suppressor system in *Drosophila melanogaster*. 6668
- TUBERCULIN**  
*Mycobacterium fortuitum* as a cause of bovine mastitis  
 Tuberculin sensitivity following experimental infections. 7459
- TUBERCULOSIS**  
 The use of chemotherapeutic agents in animal tuberculosis. 7396  
 Tuberculosis in deer. 7421
- TULARE MOSAIC (APPLES)**  
 Approach graft transmission of Tulare apple mosaic virus between apple and *Gomphrena globosa*. 6753  
 Properties of tulare apple mosaic virus. 6821
- TULAREMIA**  
 Ticks in the United States serve as vectors of disease. 7187
- TULIPA**  
 Purification of tulip breaking virus. 6973
- TUNG OIL TREE**  
 Relation of *Cercospora* infection to oil application on the dorsal or ventral side of tung leaves. 6948
- TURF**  
 Influence of temperature on rate of growth of five fungus pathogens of turfgrass and on rate of disease spread. 6745
- TURKEY EGGS**  
 Calcium requirements of turkey breeder hens. 7135
- TURKEYS**  
 Calcium requirements of turkey breeder hens. 7135  
 The incidence of spontaneous pathologic changes in aortas of growing turkeys. 7138  
 Studies on the dietary requirement and interaction of magnesium with antibiotics in turkeys to 4 weeks of age. 7141  
 Experimental ornithosis in calves. 7147  
 Effects of paromomycin sulfate on blackhead in turkeys. 7159  
 Effect of feeding various levels *Crotalaria spectabilis* seed on the performance of chicks, turkeys, and pullets. 7342  
 Salmonella pullorum infections in turkeys. 7412  
 Identification of *Mycoplasma gallisepticum* in lesion tissue by immunofluorescence. 7445  
 Potentiation of diethylstilbestrol induced aortic ruptures of turkeys with thiouracil. 7509  
 The treatment of infectious sinusitis of turkeys with Furazolidone. 7511  
 Dimetridazole part II. Therapeutic activity and toxicity in the treatment of experimental histomoniasis in turkeys. 7619
- TURNIPS**  
 Resistance in *Matthiola incana* to the turnip mosaic virus. 6884  
 The effect of soil treatments of chlordane or heptachlor on the flavor of turnips, parsnips, and carrots. 7671
- TURTLES**  
 Salmonellosis in turtles in Rhode Island. 7486  
 New investigations on cold-blooded animals as Salmonella sources. 7546  
 Salmonellosis in turtles in Minnesota. 7553

# SUBJECT INDEX

## TYLENCHIDAE

### TYLENCHIDAE

Biological studies of a new species of *Anguina* (Nematoda) (Tylenchidae) parasitic on *Plantago aristata* Michx. 7115

### TYLENCHORHYNCHUS

On two plant parasitic nematodes from a cauliflower field in the Punjab. 7092

### TYLENCHORHYNCHUS CLAYTONI

Effects of *Meloidogyne* spp. and *Tylenchorhynchus claytoni* on pea wilt incited by *Fusarium oxysporium* f. *pisi* race 1. 6732

### TYLENCHUS

On two plant parasitic nematodes from a cauliflower field in the Punjab. 7092

### TYRIA

Starvation tests with larvae of the cinnabar moth. 7043

### ULCERS

Perforation of the omasum and ulceration of the abomasum in a cow. 7244

Porcine gastric ulcers in the United States: a review. 7263

Ulceration of cow's teats caused by a virus. 7415

### ULTRAVIOLET RAYS

Effects of ultraviolet preinoculation treatment of leaves on subsequent infection by tobacco mosaic virus and TMV. ribonucleic acid. 6899

The role of the coat protein in the inactivation of tobacco mosaic virus by ultraviolet light. 6931

Release of inhibited tobacco mosaic virus (TMV) infection by ultraviolet irradiation as affected by time and temperature after inoculation. 6971

### UNITED STATES

Detection of the tobacco vein necrosis strain of potato virus Y in *Solanum cardenasii* and *S. andigenum* introduced into the United States. 6776

Infectious bronchitis virus types--Incidence in the United States. 7356

### UREA

Translocation of C14-labeled compounds in cotton and oaks. 7708

### UREDINALES

Effect of urediospore concentration on determination of races of rust fungi. 6733

### UREDIOスポレ

Effect of urediospore concentration on determination of races of rust fungi. 6733

### UREDOSPORES

Cold-induced dormancy and its reversal in uredospores of *Puccinia graminis tritici*. 6713

### UREMIA

Peritoneal dialysis as an adjunct to Leptospirosis therapy in a dog. 7473

### URIDINE

Incorporation of radioactive Uridine into the RNA of the lepidopteran *Barathra brassicae*. 6599

### URINARY CALCULI

Experimental production and control of urolithiasis. 7349

Urethral calculi in a steer. 7363

A case of retention pyonephrosis in a Corgi bitch. 7419

Amino-acid excretion in canine cystine-stone disease. 7530

### UROCYSTIS

The haploid behavior of *Urocystis colchici* teliospores. 7725

### UROLITHIASIS

Experimental production and control of urolithiasis. 7349

### UROMYCES

Heat therapy of bean rust. 6974

### USTILAGO

Effects of *Ustilago avenae* on growth of two oat varieties. 6832

### UTAH

Control of western X-disease virus in Utah orchards. 6951

Effects of low temperature on the survival of the alfalfa weevil from Alberta and Utah. 7047

### UTERUS

Vitamin D3 and ovine ring womb. 7257

Cervical and uterine infection in thoroughbred mares. 7348

A case of traumatic uterine rupture in a heifer. 7399

To veterinary surgeons in equine practice Survey of uterine infections. 7430

Uterine infections in mares--1964 survey. 7432

Incomplete dilation of the ovine cervix. 7515

### VACCINES

Husk in cattle Laboratory and field studies on calves vaccinated with irradiated with lungworm larvae. 7605

Vaccination of calves against rinderpest. 7634

### VAGOTOMY

Physiological and pharmacological factors which influence the incidence of acute pulmonary alterations following vagotomy in the domestic cock. 7136

### VAN DE GRAAFF GENERATORS

Dosimetry for studies on the radiobiology of *Tribolium castaneum* using the Van de Graaff electron accelerator. 7754

### VANCOMYCIN

Vancomycin prevents crown gall. 6711

### VAPAM

Decomposition of sodium N-methyldithiocarbamate in soil. 7748

### VAPORIZER

A fumigant vaporizer unit for use in laboratory experiments. 7758

### VAPORS

Herbicidal activity of vapors of 4-amino-3,5,6-trichloropicolinic acid. 7123

### VARROA JACOBSONI

Occurrence of mite *Varroa jacobsoni* Oudemans in brood cells of honey bee, *Apis indica* F. 6612

### VEAL

Intensive veal production and a hitherto untried nitrofurantoin preliminary trial. 7329

### VEGETABLES

Improving emergence of pelleted vegetable seeds with porous coatings. 6917

Bionomics and control of certain *Plusiinae* and studies of an associated nuclear polyhedrosis virus. 6992

Field evaluation of Sevin as an insecticide for pests of vegetables in New Jersey. 7010

### VEGETATION

A sampling technique for estimating populations of small arthropods in soil and vegetation. 6455

### VEICULAR STOMATITIS

Response of rabbits and guinea pigs to vesicular stomatitis virus. 7217



# SUBJECT INDEX

<b>VEIN MOSAIC (RED CLOVER)</b>	
A new pea streak virus related to red clover vein mosaic virus (RCVMV). . .	6977
<b>VENOMS</b>	
The venom of the mud-dauber wasp <i>Sceliphron caementarium</i> .	6620
<b>VENTILATION</b>	
The relation between storage molds and damage in high-moisture rice in aerated storage.	6894
<b>VENTURIA</b>	
Chemotherapy of the apple scab disease with butyric acid derivatives.	6801
<i>Venturia inaequalis</i> (Cke.) Wint. xvi. amino acids in relation to pathogenicity of two wild-type lines to two apple varieties.	6962
<b>VERATRUM</b>	
Chronologic evaluation of tetratogenicity in sheep fed <i>Veratrum californicum</i> .	7249
<b>VERMINOUS BRONCHITIS</b>	
Limitations of lungworm vaccine.	7153
Immunization experiments with lungworm larvae.	7592
Husk in cattle Laboratory and field studies on calves vaccinated with irradiated with lungworm larvae.	7605
Lungworm infection in cattle-Control and treatment.	7627
<b>VERTICILLIUM</b>	
Influence of <i>Pratylenchus penetrans</i> alone and in combination with <i>Verticillium albo-atrum</i> on growth of peppermint.	6707
Inversion phenomenon induced by nabam derivatives.	6728
Effect of biotin on growth and sporulation of <i>Verticillium albo-atrum</i> .	6777
Theoretical relationships between inoculum potential and disease severity based on a study of the variation in virulence among isolates of <i>Verticillium albo-atrum</i> .	6892
The inactivation of <i>Verticillium albo-atrum</i> in apricot trees.	6938
Inhibition of fungi by culture media previously exposed to light.	6954
Influence of oat and alfalfa residues on soil respiration, fungistasis, and survival of <i>Verticillium albo-atrum</i> .	7723
<b>VERTICILLIUM ALBO-ATRUM</b>	
The effect of growth substances on <i>Verticillium</i> wilt of tomato plants.	6909
<b>VESICULAR STOMATITIS VIRUS</b>	
Effects of cortisol and adrenalectomy on induction of interferon by endotoxin.	7468
<b>VETCH</b>	
A physiogenic leaf and stem spot of some forage legumes.	6790
Mortality factors for the vetch bruchid, <i>Bruchus brachialis</i> .	7000
Paraquat for selective control of range weeds.	7125
Evidence for a difference in toxicity between common and hairy vetch seeds for chicks.	7687
<b>VETERINARY MEDICINE</b>	
The responsibilities of veterinary practitioners as to the use of pesticides.	7229
The search for veterinary insecticides. II. carbamates active against sheep blowfly.	7691
<b>VIBRIO</b>	
Changes in endometrium of vibrio fetus-infected and noninfected heifers.	7190
Newer knowledge of ovine vibriosis.	7310

## VIRUS DISEASES (PLANTS)

Fluorescent antibody detects carriers of <i>Vibrios</i> .	7426
<b>VIBRIO COLI</b>	
Studies on the pathogenesis of <i>Vibrio coli</i> infection in swine.	7541
<b>VIBRIOS</b>	
Ineffectivity of furazolidine in ovine vibriosis.	7167
<b>VIBRIOSIS</b>	
Dihydrostreptomycin therapy of bovine vibriosis.	7161
Newer knowledge of ovine vibriosis.	7310
<b>VIRAL VACCINES</b>	
Foot-and-mouth disease vaccine-production of antigen in culture.	7177
The growth of rabies virus in tissue culture and its use as a living attenuated vaccine for domestic animals.	7224
<b>VIREMIA</b>	
Rift valley fever in calves, goats and pigs.	7194
<b>VIROLOGY</b>	
Comparisons of pea enation mosaic virus isolates.	6878
<b>VIRUCIDES</b>	
The control of an outbreak of pneumonia in broiler calves with Virugon, a synthetic, oral anti-viral agent.	7301
<b>VIRUS A (CABBAGE)</b>	
The response to temperature of cabbage virus A infection in <i>Nicotiana glutinosa</i> .	6758
Resistance in <i>Matthiola incana</i> to the turnip mosaic virus.	6884
<b>VIRUS A (CITRUS)</b>	
Transmission of the stubborn and psorosis A viruses of citrus to an herbaceous host.	6928
<b>VIRUS DISEASES</b>	
A haemolytic <i>Coccobacillus</i> recovered from poultry.	7345
<b>VIRUS DISEASES (ANIMALS)</b>	
Isolation of enteroviruses from intestinal tract of swine.	7155
Foot-and-mouth disease vaccine-production of antigen in culture.	7177
Ovine abortion virus in ewes and fetuses.	7195
Effect of rabies virus inoculated into foxes and skunks.	7207
Response of rabbits and guinea pigs to vesicular stomatitis virus.	7217
Infectious bronchitis virus- tissue distribution.	7359
Viral causes of bovine abortion in Ohio.	7493
Observations on pathogenicity and immunogenicity of a cell-culture-modified foot-and-mouth disease virus.	7498
Transmission and characterization of edema disease of swine.	7535
<b>VIRUS DISEASES (PLANTS)</b>	
Some effects of supplying benzyladenine to leaves and plants inoculated with viruses.	6695
The flat apple disease.	6729
Some biochemical changes associated with virus infection in apple.	6820
Studies on a virus causing stem grooving and graft-union abnormalities in Virginia Crab apple.	6843
Effect of rootstock on the incidence of impietratura-diseased grapefruit fruits.	6846
Differentiation of viruses transmitted from <i>Pelargonium hortorum</i> .	6865
Comparisons of pea enation mosaic virus isolates.	6878

# SUBJECT INDEX

## VIRUS PNEUMONIA

- Transmission of a virus disease of mushrooms by infected spores. 6890
- Effect of age of vector and of abdomen punctures on virus transmission. 6910
- Identification of the viruses affecting commercial varieties of pepper (*Capsicum annuum*) in New Jersey. 6925
- A virus infecting maize in South Dakota. 6927
- The role of the coat protein in the inactivation of tobacco mosaic virus by ultraviolet light. 6931
- Rough fruit of sweet cherry. 6950
- Dodder transmission of citrange stunt virus, a virus associated with tatter leaf of citrus. 6952
- The infectious nature of pollen from certain virus-infected stone fruit trees. 6963
- Mechanical transmission of a latent lemon virus. 6976
- Water tensions in plants, an entomological approach. 7037
- VIRUS PNEUMONIA**
- Pig diseases in the Rhodesias. 7241
- The control of an outbreak of pneumonia in broiler calves with Virugon, a synthetic, oral anti-viral agent. 7301
- The characterization of a causative agent of virus pig pneumonia. 7413
- VIRUS X (CHERRIES)**
- Control of western X-disease virus in Utah orchards. 6951
- VIRUS X (PEACHES)**
- Control of western X-disease virus in Utah orchards. 6951
- VIRUS X (REDPEPPERS)**
- Identification of the viruses affecting commercial varieties of pepper (*Capsicum annuum*) in New Jersey. 6925
- VIRUS Y (REDPEPPERS)**
- Identification of the viruses affecting commercial varieties of pepper (*Capsicum annuum*) in New Jersey. 6925
- VIRUSES**
- Establishment of an insect cell strain persistently infected with an insect virus. 6592
- A virus-like particle in Avon and Fundy potatoes. 6739
- Bentonite flocculation a rapid, sensitive serological test for the detection of plant virus antigens. 6897
- The role of the coat protein in the inactivation of tobacco mosaic virus by ultraviolet light. 6931
- Ulceration of cow s teats caused by a virus. 7415
- VISCERA**
- Recovery of aster yellows from excised organs of insect vectors. 6770
- VITAMIN A**
- Unusual cerebellar conditions in pigs. Part 1. Cerebellar herniation associated with vitamin A deficiency. 7326
- Studies on coccidiosis and vitaminA nutrition of broilers. 7451
- VITAMIN C**
- Suspected skeletal scurvy in the dog. 7372
- VITAMIN D**
- Influence of dietary zinc, calcium and vitamin D for hens on zinc content of tissues and eggs and on bone composition. 7137
- Influence of vitamin D on avrious aspects of the reproductive process in mature hens. 7142
- VITAMIN D3**
- Vitamin D3 and ovine ring womb . 7257

## VITAMIN E

- The effects on house flies of adding wheat germ and corn oils to fly media. 6654

## VITAMINS

- Studies on the nutritional requirements of the fruit fly *Dacus cucurbitae* Coquillett (Diptera, Trypetidae). iv. responses of *D. cucurbitae* larvae to vitamin deficient diets. 6512
- Pathogenicity, vitamin nutrition, and cultural characteristics of isolates of *Phytophthora parasitica* from carnation and other hosts in hawaii. 6768
- Vitamin D-induced calcium binding factor in rat intestinal mucosa. 7388

## WARFARIN

- Heritable resistance to warfarin in rats. 7693

## WATER

- Studies of water conservation in cockroaches. 6653
- Relationship of water content and living cells to spread of *Diplodia zeae* in corn stalks. 6849
- Disinfected water suppresses *Pseudomonas* in mice. 7357

## WATER CONSUMPTIVE USE

- Water tensions in plants, an entomological approach. 7037
- The influence of selected nematode species and number of consecutive plantings of corn and sorghum on forage production, soil, and water use efficiency. 7087

## WATER POLLUTION

- Oxygen balance in a stream receiving domestic and oil refinery effluents. 7655
- Dipyridylum residues in an aquatic environment. 7662

## WAXES

- The free fatty acids and neutral lipids of the cuticular wax of the Mormon cricket, *Anabrus simplex*, Hald. 6605

## WEATHER

- Long-range aerial transport of the harlequin bug and the greenbug into Minnesota. 6456
- Time of year of infection of winter wheat by the dwarf bunt fungus. 6862
- Autumn and winter sporulation by basidiocarps of *Pomes annosus*. 6871
- The seasonal incidence of canine coccidiomycosis. 7475
- DDT deposits on grapes as affected by growth and weathering. 7682

## WEATHER FLECK (TOBACCO)

- Response of plants to air pollutants. II. Effects of ozone concentration and leaf maturity on injury to *Nicotiana tabacum*. 6815

## WEED CONTROL

- Influence of tillage, row spacing, and atrazine on sorghum and weed yields from nonirrigated sorghum across Nebraska. 7120

## WEEDS

- An evaluation of *Solanum nigrum* and *Physalis minima* as suspects of *Xanthomonas vesicatoria*. 6792
- The fight against weeds. 7121
- Science and education a new awareness. 7122
- Paraquat for selective control of range weeds. 7125
- Weed science - revolution in agricultural technology. 7131
- ISU veterinarians suspect two weeds as cause of seasonal swine disease. 7157

## WELLS DISEASE

- The clinical approach to abdominal disorders of the dog. 7502



# SUBJECT INDEX

WISCONSIN

- WESTERN UNITED STATES**  
Characteristics and control of swainsonpea. 7130
- WHEAT**  
Estimating immature populations of rice weevils in wheat by using subsamples. 6460  
Distribution and sorption of liquid fumigants applied to wheat by recirculation. 6688  
Inheritance of stem rust resistance in two wheat varieties, Marguis and Kota. 6706  
Fungi attacking seeds in dry seed-beds. 6759  
Postinfection development of wheat bunt in relation to controlled soil moisture. 6860  
Three distinct pathogenic types of stripe rust in the western states. 6861  
Time of year of infection of winter wheat by the dwarf bunt fungus. 6862  
Genetic model for physiologic studies of mechanisms governing development of infection type in wheat stem rust. 6876  
Epidemiology of glume blotch of wheat. 6888  
Factors affecting resistance of wheat to scab caused by *Gibberella zeae*. 6893  
Effects of various diurnal temperature profiles on host-parasite reaction of wheat varieties and *Puccinia striiformis*. 6903  
Overwintering of stripe rust in winter wheat in Montana. 6904  
A method of using mycelial, monosporial isolates of *Tilletia controversa* in pedigreed hybrid crosses. 6908  
Relation of *Agropyron repens* mosaic and wheat streak mosaic virus. 6922  
Culture of the dwarf bunt fungus. 6944  
Insecticidal control of the Hessian fly. 6987  
Effect of ronnel upon the adult rice weevil, *Sitophilus oryza*. 7012  
The effect of seed treatments with phorate and other systemic insecticides on the germination of wheat. 7027  
Effect of culm scaldness on the survival of the wheat stem sawfly. 7041  
Susceptibility of certain stages of the rice weevil to a methallyl chloride fumigant formulation in wheat of various moistures. 7045  
Chloroplast number in leaves of normal wheat plants and those infested with hessian fly or treated with maleic hydrazide. 7052  
Effect of temperature and humidity on the fecundity and development of *Cadra cautella* Wlk. in wheat. 7071  
The use of phorate to control aphids and the Hessian fly on winter wheat. 7078  
Population dynamics and fumigation studies of certain nematodes associated with roots of wheat in Nebraska. 7101  
Development of granary weevils and storage fungi in columns of wheat- II. . 7643  
Factors affecting invasion of grains and seeds by *Aspergillus flavus* and effects of the fungus on germination of the seeds. 7644
- WHEAT GERM**  
The effects on house flies of adding wheat germ and corn oils to fly media. 6654
- WHEAT STRAW**  
Effect of the soil carbon nitrogen ratio on soil fungi. 6778
- WHITE CLOVER**  
Seed transmission of white clover mosaic and clover yellow mosaic viruses in red clover. 6760
- WHITE MUSCLE DISEASE**  
White muscle disease, a selenium-responsive myopathy. 7443
- WHITE-PINE SHOOT BORER**  
White-pine shoot borer (*Eucosma gloriola* Heinrich). 7002
- WILDFIRE (TOBACCO)**  
Free amino acid and amide content of tobacco and oats infected by wildfire and halo blight bacteria. 6851
- WILDLIFE**  
Effects of an aerial DDT spray on aquatic insects in Connecticut. 7016  
Isolation of a virus from a condition simulating feline pan-leucopaenia in a leopard. 7380  
Toxic chemicals. 7734
- WILDLIFE DISEASES**  
Wildlife rabies increases. 7180  
Red squirrel disease. 7293
- WILT (COTTON)**  
A comparison of *Fusarium* wilt indices of cotton varieties with root-knot and sting nematodes as predisposing agents. 6727  
Prevention of symptom development of *Fusarium* wilt of cotton by isolates of a *Cephalosporium* species. 6877
- WILT (CUMINUM CYMINUM)**  
Effect of SHDC on germination, plant growth, and *Fusarium* wilt incidence of cumin (*Cuminum cyminum*). 6805
- WILT (PEAS)**  
Effects of *Meloidogyne* spp. and *Tylenchorhynchus claytoni* on pea wilt incited by *Fusarium oxysporum* f. *pisi* race 1. 6732
- WILT (QUERCUS)**  
*Ceratocystis fagacearum* in roots of infected bur oaks and the recurrence and spread of oak wilt. 6831  
Insects associated with wounds on trees that develop oak wilt. 6989
- WILT (SAFFLOWER)**  
Wilt-incitant *Fusarium oxysporum* f. *carthami* present in seed from infected safflower. 6785
- WILT (SWEETPOTATOES)**  
Anatomical aspects of resistance in sweetpotato to *Fusarium* wilt. 6956
- WILT (TOMATOES)**  
Semeiography of *Fusarium* wilt of tomato. 6719  
*Fusarium* wilt (race2) of tomato0 effect of lime and micro-nutrient soil amendments on disease development. 6775  
Prevention of symptom development of *Fusarium* wilt of cotton by isolates of a *Cephalosporium* species. 6877  
The effect of growth substances on *Verticillium* wilt of tomato plants. 6909
- WINDBREAKS**  
The horizontal and vertical distribution of flying insects near artificial windbreaks. 6462  
Control of *Cylindrosporium* leaf spot disease of *Rhus trilobata* and *Shepherdia argentea* seedlings. 6855
- WISCONSIN**  
Purification, morphology, and biochemical characterization of the Wisconsin pea streak virus. 6872  
The biology of the pine webworm, *Tetralopha robustella*, in Wisconsin. 7116

# SUBJECT INDEX

## WOOD DESTROYING FUNGI

Wisconsin eradicates brucellosis. 7176

WOOD DESTROYING FUNGI  
Trichlorobenzene as a soil toxicant against four wood-decaying soil fungi. 6735

The microbial hydrolysis of cellulose and some factors affecting the production of cellulase in a submerged culture of *Alternaria* sp. 7718

WOOD SUGAR  
Nutritional and biochemical aspects of arabinose and xylose for chicks. 7539

WOODINESS (GRANADILLA)  
Two unrelated viruses which cause woodiness disease of passion fruit (*Passiflora edulis*). 6937

WOUND-TUMOR  
Similarities between wound-tumor virus and the human-pathogenic reoviruses. 6932

X-RAYS  
Some effects of X-radiation on larvae of *Galleria mellonella*. 6541

Effects of X-rays, tryptophan metabolites, and eye color mutants on the tumor-suppressor system in *Drosophila melanogaster*. 6668

XANTHOMONAS VESICATORIA  
An evaluation of *Solanum nigrum* and *Physalis minima* as suspects of *Xanthomonas vesicatoria*. 6792

XANTHAMONAS  
Comparative bactericidal properties of N-polyhaloethylthio hydanitins. 7737

XANTHIUM  
Physiological and metabolic changes induced by lethal concentrations of 2,4-D in the cocklebur (*Xanthium* spp.). 7705

XANTHOMATOSIS  
*Xanthomatosis* in laying hens - a case report. 7391

XANTHOMONAS  
Internally infected seed as a source of inoculum for the primary cycle of bacterial blight of cotton. 6712

Inheritance of resistance in pepper to bacterial spot. 6725

Multiplication of *Xanthomonas vesicatoria* on tomato seedlings. 6796

Survival of *Xanthomonas vesicatoria* in soil and diseased tomato plants. 6854

Common antigens in *Xanthomonas malvacearum* and *Gossypium hirsutum* and their possible relationship to host specificity and disease resistance. 6891

Three diseases of guar. 6918

XIPHINEMA  
Relationships of viruses associated with ringspot diseases of blueberry. 6798

XIPHINEMA AMERICANUM  
A bacterial infection of *Xiphenema americanum*. 7082

XIPHINEMA BASIRI  
Studies on two plant nematode species of the genus *Xiphenema* Cobb, 1913. 7095

XIPHINEMA INDICUM  
Studies on two plant nematode species of the genus *Xiphenema* Cobb, 1913. 7095

XYLEBORUS FERRUGINEUS  
Diurnal emergence of *Xyleborus ferrugineus* (Coleoptera, Scolytidae) from cacao trunks in Ecuador and Costa Rica. 7057

YELLOW DWARF (BARLEY)  
Effects of barley yellow dwarf virus on yield of oats as influenced by variety, virus strain, and developmental stage of plants at inoculation. 6744

Greenbug dispersal and distribution of barley yellow dwarf virus in Wisconsin. 6812

YELLOW DWARF (POTATOES)  
Effect of age of vector and of abdomen punctures on virus transmission. 6910

YELLOW MOSAIC (BEANS)  
Breakdown of mo mo resistance in *Pisum sativum* by thermal selection within certain strains of the bean yellow mosaic virus (BV2). 6859

YELLOW MOSAIC (CLOVER)  
Seed transmission of white clover mosaic and clover yellow mosaic viruses in red clover. 6760

YELLOW SPOTTING (LETTUCE)  
An apparent strain of tobacco rattle virus associated with a yellow spotting of lettuce. 6757

YELLOW STAR THISTLE  
Nigropallidal encephalomalacia in the horse. 7307

YELLOWS (CHERRIES)  
Variability in rates of movement of different strains of the virus responsible for prune dwarf. 6818

ZEBU CATTLE  
Prophylaxis against trypanosomiasis in Zebu cattle. IV. A field trial of metamidium and Isometamidium. 7482

The occurrence of *Baillietia auris* in Zebu cattle in Nigeria. 7609

The anthelmintic efficiency of Haloxon against the adult and immature stages of the gastro-intestinal strongyles of Nigerian Zebu cattle. 7614

Prophylaxis against trypanosomiasis in Zebu cattle. III. Potentiation trials and a trial of R.D. 2902 in an area of medium trypanosome risk. 7630

ZINC  
Influence of dietary zinc, calcium and vitamin D for hens on zinc content of tissues and eggs and on bone composition. 7137

Zinc availability in the chick as affected by phytate, calcium and ethylenediaminetetraacetate. 7139

ZINC BACITRACIN  
Zinc bacitracin and chick growth. 7274

ZINC SULFATE  
Fusarium wilt (race2) of tomato0 effect of lime and micro-nutrient soil amendments on disease development. 6775

ZINEB  
The effect of copper compounds on control of citrus rust mite with zineb. 7022

ZOOGEOGRAPHY  
Acarina associated with Michigan Bombinae. I-II. 6458

Fleas (Siphonaptera) of Alabama and their host relationship. 6467

ZOOLOGICAL GARDENS  
Sixth international symposium on diseases of zoo animals. 7158

ZOONOSES  
The zoonosis problem in Chile. 7522

ZOOSPORES  
Prolonging the motility and virus-transmitting ability of Olpidium zoospores with chemicals. 7726

1,2-DIBROMO-3-CHLOROPROPANE  
Decline of grapefruit trees in relation to citrus nematode populations and tree recovery after chemical treatment. 7106

2-(2,4,5-TRICHLOROPHENOXY) PROPIONIC ACID  
Characteristics and control of swainsonpea. 7130



# SUBJECT INDEX

6,7,8,8-

2,4-D  
 Characteristics and control of swainsonpea. 7130  
 Translocation of C14-labeled compounds in cotton and oaks. 7708  
 4-TEBT-BUTYL-2-CHLOROPHENYL METHYL METHYLPHOSPHORAMIDATE  
 Toxicity of organic phosphorus insecticides to horses. 7694  
 The bean leaf skeletonizer, Autoplusia egea, and its  
 control on bush snap beans in the everglades. 7006





## BIOGRAPHICAL INDEX

Mathur, S B

Ahmed, H		Getzin, L W	
University of London		Texas Agricultural Experiment Station, Weslaco	7008
Queen Elizabeth College		Gingrich, R E	
Department of Biology	7686	U.S. Public Health Service	
Allen, W R		National Institutes Of Health	7567
Canada Dept. Of Agriculture, Vineland Station, Ontario		Gonzalez, L C	
Research Branch		Wisconsin Alumni Research Foundation	6758
Research Laboratory	6696	Granett, P	
Haldwin Jr, C H		Union Carbide Chemicals Company At Rutgers University	7010
National Institutes Of Health	6701	Granett, P	
Banttari, E E		Union Carbide Chemicals Company At Rutgers	7568
North Central Regional Project	6702	Grayson, J McD	
Barnett, S F		National Pest Control Association	6535
School Of Veterinary Medicine, Cambridge, England	7239	Hamilton, K C	
Hateman, D F		Dow Chemical Co., Midland, Mich.	7124
National Institutes Of Health	6704	Hamm, J J	
Herg, L A		Purdue University, Lafayette, Ind.	
West Virginia University, Morgantown	6706	Agricultural Experiment Station	
Blum, M S		Southern Grain Insects Investigation	6540
Louisiana State University		Hampton, R O	
Dept. Of Entomology	7688	U.S. Dept. Of Agriculture, Prosser	
Board, R G		Vegetables And Ornamentals Research Branch	6761
School Of Agriculture, Edinburgh, Scotland		Harris, J J	
Dept. Of Bacteriology	7651	Swift And Company	
Brass, C I		Agricultural Chemical Division	7570
Hatch 147	6686	Heald, P J	
Brock, W E		The University, Reading, England	
Fort Dodge Laboratories, Iowa	7258	Dept. Of Physiological Chemistry	7351
Hurbutis, P P		Helton, A W	
H. P. Cannon And Son, Inc., Bridgeville, Del.	6990	University of Idaho, Moscow	
Caltrider, P G		Department of Plant Sciences	6764
Eli Lilly Company, Indianapolis, Ind.	7704	Hilu, H M	
Casida, J E		Dept. Of Health, Education And Welfare	
University Of Wisconsin, Madison		Public Health Service	
Dept. Of Entomology	6509	National Institutes Of Health	6767
Chambers, H L		Ignoffo, C M	
Oregon State University		International Minerals And Chemical Corp., Wasco, Calif.	
Graduate School	6719	Bioform Division	6557
Chapman, H C		Ignoffo, C M	
U.S. Dept. Of Agriculture		International Minerals And Chemical Corp., Wasco, Calif.	
Agricultural Marketing Service	7647	Bioform Division	6559
Chessin, M		Jaycox, E R	
U.S. Public Health Service		U.S. Dept. Of Agriculture, Logan, Utah	
National Institute Of Allergy And Infectious Diseases	6720	Agricultural Research Service	
Clor, M A		Entomology Research Division	7021
College Of Science, Tripoli, Libya	7708	Kahn, R P	
Daum, R J		U.S. Plant Introduction Station	6776
U.S. Dept. Of Agriculture, Beltsville, Md.		Kaufman, D D	
Biometrical Services		U.S. Dept. Of Agriculture, Beltsville, Md.	
Plant Industry Station	7666	Agricultural Research Service	
Dickason, E A		Crops Research Division	6778
Oregon State College, Corvallis	7000	Kawakishi, S	
Dobson, R C		Nagoya University	
Purdue University		Department of Agricultural Chemistry	
Dept. Of Entomology	7667	Faculty of Agriculture	7741
Downes, J A		Kerr, E D	
Canada Department of Agriculture		University Of Nebraska	
Entomology Research Institute	6521	Plant Pathology Department	7101
Drake, C R		Khadga, B H	
Virginia Agricultural Experiment Station, Blacksburg	6737	Olin Mathieson Chemical Corporation	6781
Dwurazna, M M		Kienholz, E W	
Polish Academy Of Sciences, Cracow	6739	Colorado State University	
Ehrlich, H G		Dept. Of Poultry Science	7137
National Science Foundation	7711	Kirk, R E	
Endo, R M		American Cyanamid Company	7027
University Of California, Riverside		Klarman, W J	
Dept. Of Plant Pathology	6744	University Of Maryland, College Park	
Evans, W G		Dept. Of Botany	6782
University Of Alberta, Edmonton, Canada		Knapp, F W	
Dept. Of Entomology	6453	Chemagro Corporation, Kansas City, Mo.	7573
Fenton, B K		Krause, G F	
Agri-Tech, Inc., Kansas City, Mo.	7302	U.S. Public Health Service	
Fenwick, H S		National Institutes Of Health	6460
University of Idaho, Moscow		Krstic, M M	
Plant Science Department	6747	Yugoslavia Forest Faculty, Beograd	6791
Free, J B		Lichtenstein, E P	
Ontario Agricultural College, Guelph		Shell Chemical Corporation	7672
Agriculture Dept.	6529	Lichtenstein, E P	
Gale, C		Shell Chemical Corporation	7673
Ohio Agricultural Experiment Station		Lipa, J L	
Veterinary Science Dept.	7314	U.S. Dept. Of Agriculture, FG- PO-112	6578
Galindo, J		Lipke, H	
Department Of fitopatologia	6752	Army Chemical Center, Md.	
Genung, W G		Physiology Division	6579
Hercules Powder Company	7006	Lockwood, J L	
Georgopoulos, S G		National Science Foundation	6799
Olin Mathieson Chemical Corporation	7713	MacLennan, D H	
Georgopoulos, S G		Campbell Soup Company, Camden, N.j.	6801
Olin Mathieson Chemical Corporation	7738	Mathur, S B	

## BIOGRAPHICAL INDEX

Matsumura, F

Danish Govt. Inst. of Seed Path. for Develop. Countries	6806	University Of The Philippines, Laguna	
Matsumura, F		Dept. Of Plant Pathology	6884
University Of Western Ontario, London, Canada		Sandstedt, R	
Dept. Of Zoology	7674	Public Health Service	
McDonald, B E		National Institute Of Allergy And Infectious Diseases	7109
University Of Illinois		Schroeder, H W	
Dept. Of Animal Science	7138	U.S. Dept. Of Agriculture	
Menke, G B		Agricultural Marketing Service	6893
Institut Fur Phytopathologie, Giessen, West Germany	6813	Seaman, W L	
Menser, H A		Canada Dept. Of Agriculture, Ottawa	
Cigar Manufacturers Association	6815	Plant Research Institute	6898
Metcalf, R L		Simpson, C F	
U.S. Public Health Service	7035	U.S. Public Health Service	
Miller, P R		National Heart Institute	7508
California Division Of Forestry		Singh, S B	
Dept. Of Natural Resources	6819	U.P. Agricultural University, Pantnagar, Nainital, India	
Miller, W E		College Of Veterinary Science	7510
East Lansing Michigan Research Center	6465	Spurr Jr, H W	
Mitchell, R		Rockefeller Foundation	7756
National-University Inst. Of Agriculture, Rehovoth, Israel		Steinhauer, J E	
Dept. Of Soil And Water	6822	Michigan State University, East Lansing	
Mohanty, S B		Food Science Dept.	7653
U.S. Dept. Of Agriculture		Stemp, A R	
Agricultural Research Service		U.S. Public Health Service	
Animal Disease And Parasite Research Division	7434	Division Of Environmental Engineering And Food Protection	7681
Morgan, F L		Stern, V M	
U.S. Dept. Of Agriculture, Stoneville, Miss.		U. S. Public Health Service	
Agricultural Research Service		National Institutes Of Health	
Crops Research Division	6827	National Institute Of Allergy And Infectious Diseases	7065
Mountney, G J		Sullivan, R L	
National Institute Of Health	7652	Dept. Of The Army	
Mulla, M S		Office Of The Surgeon General	
Coachella Valley Mosquito Abatement District, Riverside Cty.	7576	Research And Development Division	6676
Munnecke, D E		Tashiro, H	
U.S. Public Health Service		U.S. Dept. Of Agriculture, Riverside, Calif.	6648
National Institutes Of Health	6829	Turner, N J	
O Keefe, L E		Boyce Thompson Institute, Yonkers, N.Y.	7748
Iowa State University		Turner, P D	
Dept. Of Zoology And Entomology	7041	University Of Hong Kong	
Ogawa, J M		Dept. Of Botany	6947
The Upjohn Company, Kalamazoo, Mich.	6838	Wallace, L J	
Ohman, J H		Michigan State University, East Lansing	
Lake States Forest Administration Station, Marquette, Mich.	7128	Dept. Of Pathology	7540
Orlob, G B		Wallasz, D P	
National Research Council Of Canada.	6845	Wisconsin Conservation Dept.	
Panda, B		Division Of Forestry	7116
P. O. Alada, Dist. Balasore, Orissa, India	7451	Watson, D L	
Pappelis, A J		California Spray Chemical Company, Morristown, N.J.	6656
Southern Illinois University, Carbondale		Whitney, W K	
Dept. Of Botany	6849	Kansas State University, Manhattan	6688
Pedersen, J R		Williams, B J	
Public Health Service		Victoria University, Wellington, New Zealand	
National Inst. Of Health, Allergy And Infectious Diseases	7045	Botany Dept.	6962
Peters, D C		Wilson, C L	
Iowa State University, Ames	7648	National Science Foundation	6966
Peterson, A G		Wilson, M C	
State Of Minnesota		American Cyanamid Company	7078
Iron Range Resources And Rehabilitation Commission	6611	Winstead, N N	
Peterson, L K		National Science Foundation	6968
Canada Agricultural Research Station, Lethbridge, Alberta	7047	Winstead, N N	
Pfadt, R E		National Science Foundation	7732
Shell Chemical Corporation	7104	Wright, C G	
Powers, K G		Wilson Exterminating Company, Winston-salem, N.C.	6662
National Institute Of Arthritis And Infectious Diseases		Wynn Jr, W K	
Laboratory Of Parasite Chemotherapy	7629	Boyce Thompson Institute For Plant Research, Yonkers, N.Y.	6972
Price, C A			
National Science Foundation	7129		
Raun, E S			
Dow Chemical Company, Midland, Mich.	7577		
Renfro, B L			
North Central Regional Technical Committee	6866		
Resconich, E C			
St. Francis College, Loretto, Pa.			
Dept. Of Biology	6867		
Robblee, A R			
Cyanamid Of Canada	7140		
Roberts, D W			
Boyce Thompson Institute For Plant Research, Yonkers, N.Y.	6618		
Roberts, D W			
Boyce Thompson Institute For Plant Research, Yonkers, N.Y.	6619		
Rogoff, W M			
Chemagro Corporation	7582		
San Juan, M O			



## AUTHOR INDEX

Corden, M E

Abbasi, Q A	6475	Banwart, G J	7653	Brady Jr., U E	7563	Cardenas-Gonzalez, J	7705
6629		Barash, I	6703	Brakke, M	6922	Cardiff, E A	6819
Abdel-razig, M El T	6476	Bardin, R	6757	Bramley, P S	7734	Carlstrom, R C	6728
Abelseth, M K	7224	Barker, R J	6485	Brander, G C	7256	Carnaghan, R B A	7225
Abo-el-Dahab, M K	6743	Barley, E E	7236	7556		7264, 7406	
Abrahamson, L P	6477	Barlow, R M	7237	Brass, C L	6686	Carpenter, J A	7730
Abul-Nasr, S	6445	Barnett, B D	7518	Bravo, G	7055	Carpenter, J B	6718
Ackerman, A J	7678	Barnett, K C	7238	Bray, D F	6990	Carpenter, T R	6858
Adams, J R	6544	Barnett, S F	7239	7017		Carroll, T W	6901
6556		7595		Brazzel, J R	6496	Carter, G R	7265
Adams, R E	7082	Barr, M	7240	6986		Carter, W	6993
Adkisson, P L	7083	Barron, N S	7241	Breinig, M K	7468	6994	
Afanasiev, M M	6693	Bartram, B G	7255	Brewerton, B V	7663	Cartwright, G E	7251
Agundis, O	7654	Basile, R	6610	Brian, R C	7119	Cartwright, J R	7371
Ahmed, H	7686	Bass, M H	6983	Bricker, J L	6946	Carver, R G	6772
Aitken, T H	6683	Bassett, R D	6912	Bridges, C H	7354	Carwardine, P C	7266
Aizawa, K	6478	Bateman, D F	6704	Bridges, G D	7257	Casida, J E	6509
Al-Dabagh, M A	7593	6750, 7701		Briggs, C A E	7735	Chadwick, J S	6510
Al-Sobaily, I A	6936	Batra, S W T	6486	Briggs, J D	6607	Chalquest, R R	7267
Aldrich, D T A	6694	Baughn, C O	7315	Brinkerhoff, L A	6712	Chambers, H L	6719
Aldwinckle, H S	6695	Baumgardner, R K	7655	Brinoley, T A	6995	Chandler, P A	6829
Alexander, B H	6680	Beach, J E	7242	Broadhead, G D	7542	Chao, J	6511
6682		Beadman, R	7243	Brock, W E	7258	Chapman, H C	6564
Allan, R E	6861	Beard, R L	6474	Brocklesby, D W	7598	7647	
Allcroft, R	7225	Beards, G W	6984	Brodie, B B	6727	Chapman, R A	7086
7264, 7406,	7455	Beasley, P G	7662	Brogdon, J L	7671	Chapman, R K	7008
Allen, G E	6479	Beck, G E	6865	Bromfield, K R	6713	Chaudhari, A Q	7268
Allen, J R	7226	Beesley, W N	7618	Brooks, G T	6668	Chawla, S S	6512
Allen, W R	6696	Beevers, L	7702	Brooks, M A	6497	6513	
Ammerman, C B	7143	Bega, R V	6705	Broome, A W J	7638	Chen, H B	7053
Amor, O F	7227	Begg, T B	7244	Brown Jr, W M	6714	Chervenick, P A	7251
Amstutz, B E	7228	Behnke, C N	6487	Brown, A W A	6587	Chessin, M	6720
Andersen, L	7707	Bell, D S	7339	Brown, C G D	7599	Chetram, R S	6721
Anderson, C R	6683	Bell, M R	6589	Brown, C M	6744	Chevres-roman, R	7087
Anderson, E H	7594	Belling, T E	7667	Brown, F G	7600	Chhabra, B K	7091
Anderson, L D	7084	Ben-Shaked, Y	6488	7601		Chiang, H C	6995
7111, 7661		Benjamin, D M	7116	Brown, H E	6987	Childs, T W	6722
Anderson, L E	7107	Bennett, S E	7669	Brown, J K	7523	Chinn, S H F	7706
Anderson, N A	6715	Bennington, E	7561	Brown, R H J	6498	Chiu, R H	6723
Anderson, R J	7229	Benschoter, C A	6985	Brown, V K	7602	Chodroff, S	7699
Anderson, R K	7407	Berg, L A	6706	Brown, W M	6728	Chopra, N P	6450
Andres, L A	6667	Berger, R D	6823	Browne, L B	6518	Chowdhuri, A N	6996
Angus, T A	6480	Bergeson, G B	6707	Brownlie, W M	7664	Christansen, D W	6718
6543		Bergold, G H	6489	Bruce, W N	7564	Christensen, C M	6957
Anthony, D W	7230	6490		Bruns, V F	7130	7643	
7483		Berlinguet, L	6631	Brunson, M H	6988	Christensen, J J	6893
Apple, J W	6933	Berwyn-Jones, M	7245	7565		Christie, G J	7269
Appleton, G S	7231	Bess, H A	7646	Bryans, J T	7286	Chu, B M	6477
Aragaki, M	6768	Bettini, S	6491	7485		Claborn, H V	7665
6769, 6863		Betts, A O	7246	Bryson, H	7273	7678	
Arakawa, K Y	6539	Beverley, J K A	7544	Buchanan, W D	6989	Clafflin, T O	6451
Arant, F S	6505	7596, 7597		7085		Clandinin, D R	7140
7571		Bhattacharya, A	7050	Bucher, G E	6499	Clapham, P A	7603
Arbuckle, B	7232	Bickley, W E	7051	6500, 6501,	6502	Clark, G T	7559
Archibald, J	7680	Bierer, B W	7247	6503, 6504		Clark, T B	6514
Ardre, F	6481	Bigley, W S	7562	Buck, W B	7694	6515, 6564	
Arima, K	7733	7676		Bugbee, W M	6715	Clarke, M L	7270
Arnett, R H	7752	Binns, R M	7248	Burbutis, P P	6990	7604	
Arora, G I	6482	Binns, W	7249	7675		Clarke, W J	7420
Arscott, G H	7687	Bird, F T	6492	Burdine, H W	6934	Clegg, F G	7271
Arthur, B W	7563	Bird, H R	7138	Burger, R E	7136	7272, 7273	
Asare-Nyako, A	6697	Bisht, D S	6612	Burke, N I	7703	Clemetson, C A B	7707
Ashdown, R R	7384	Bissell, T L	7051	Burkhalter, G F	6505	Cleveland, M L	6997
Ashford, W A	7505	Blackmore, J C	7250	Burkhardt, C C	6628	Cleverly, L M	7382
Atchley, W R	6446	Blackwood, U B	7652	7061		Clor, M A	7708
Atkins Jr, E L	6982	Blake, D F	6493	Burns, E C	7566	Coates, M E	7274
Augustinsson, K B	6509	Blank, L M	6708	Burns, K N	7259	Coats, W A	7556
Avens, A W	7682	Blaxland, J D	7461	7260		Cochran, B J	7083
7683		Block, B C	6494	Burnside, O C	7120	Cochrane, J C	7709
Ayres, J C	7651	Blum, M S	7688	Burrows, R	7410	Cochrane, V W	7709
Ayres, P	7693	Board, R G	7651	Busey, W	7435	Cohen, J	6669
Babcock, W E	7267	Boccacci, M	6491	Bustad, L K	7420	Coid, C R	7390
Babero, B E	7593	Boggs, D R	7251	7501		Colegrave, A J	7275
Bach, S J	7233	Bohl, E H	7493	Butcher, J W	6991	Colless, D H	6521
Backgren, A W	7234	Bohnenblust, K E	6709	Butler, E E	6716	Combs, G F	7451
Badman, H G	7351	Bollenbacher, K	6710	Byford, W J	6717	Condon, P	7736
Baggett, J R	6698	Boone, D M	6962	Cadman, L P	7235	Conner, G H	7276
Bagley, H M	7382	Booth, E	7252	Calavan, E G	6718	Converse, J L	7475
Bailey, L	6447	Borg, K	7253	Callenbach, J A	7041	Converse, R H	6724
6448, 6483,	6484	Boswood, B	7254	Caltrider, P G	7704	6824	
Baker, E D	7235	Bothwell, P W	7255	Cameron, R S	7261	Cook, A A	6725
Baker, J R	7362	Bottger, G T	7070	Campbell, D	7121	Cook, E F	6456
Baker, R	6699	Boudreaux, H B	6449	Campbell, J R	7262	Cooke, J R	6726
6807		Bowen, P D G	7325	Campbell, R E	7066	Cooper, R D	7754
Bald, J G	6700	Bowen, R C	6495	Canerday, T D	6536	Cooper, W E	6727
Baldwin Jr, C B	6701	Bowman, M C	6657	6992		Coppel, H C	6634
Balloun, S L	7135	Boyle, A M	6711	Cantwell, G E	6506	Coppock, J B M	7476
Bancroft, J B	6821	Bozicevich, J	6897	6507, 6508		7477	
Bang, F B	7472	Bracken, G K	6502	Cappucci, D T	7263	Corden, M E	6719
Banttari, E E	6702	Bracker Jr, C E	6716	Carbrey, E A	7479	6728, 7748	

# AUTHOR INDEX

Corkins, J P

Corkins, J P	6998	Downey, N E	7608	Fischer, P C	6720	Glendinning, S A	7348
Corley, E A	7277	Downs, W G	6683	Fish, A J	7403	Gless, E E	7579
Cornelius, C E	7441	Doyle, T M	7288	Fitzsimmons, W M	7610	Gochbauer, T A	6609
Cornwell, R L	7605	Drake, C R	6737	Fliegel, P	6749	Goheen, A C	6756
Costa, A S	6738	Drake, E L	6522	Floock, A K	7303	Gold, A H	6757
Cowan Jr, C B	7042	Draudt, H N	7736	Flora, N W	6444		7726
Cox, P M	7110	Driesens, R J	7492	Floyd, E H	7049	Goldberg, H C	7327
Coyier, D L	6729	Drooz, A T	7002	Flynn, J E	6454	Gonzalez, D E	7669
Crafts, A S	7708	Drummond, R O	7694	Foggie, E	7557	Gonzalez, L C	6758
Craig, G B	7753	Duffus, J E	6738	Foley, P B	7066	Good, P T D	7739
Crane, C S	7278	Duggal, K K	6466	Folkers, C	7304	Good, R A	7403
Cranston, F	6613	Duncan, J R	7488			Goodman, R N	6701
Crawshaw, H A	7279	Dunn, P H	6575	Ford, R E	6750	Gorham, J R	7471
Cressman, A W	7040	Duran, R	7725			Gotan, S M	6836
Crook, J C	7455	Dutcher, R M	7289			Goth, R W	6977
Cross, J E	6731	Duthie, I F	7290	Forsythe, R H	7651	Gottlieb, D	7704
Crowley, J P	7280	Duxbury, R N	7582	Forth, D M M	7306	Gough, F J	6706
Cullum, L E	7606	Dwuzna, M M	6739	Fowler, M E	7307	Gould, C M	7328
Cunningham, J A	7348	Dye, D W	6740			Gould, E	7011
Cunningham, M P	7537	Eastburg, P H	7737	Fox, P M	6528	Gould, G E	7009
Currie, W E	6603	Eastop, V F	6523	Fraenkel, G	7081	Granett, P	7010
Cutting, W	7313	Ebel, J	6586	Francis, J	7309		7568
Dahn, P A	7670	Ebeling, W	6678	Frank, P W	7310	Grasso, A	7692
Dalton, P J	7281	Eckert, J W	6741	Franklin, B A	6506	Gray, W V	7329
Dang, K	7023			Franklin, T E	7311	Grayson, J McD	6535
Daniel, N W R	7477	Economides, C V	6846	Fraser, G	7312	Greaves, J H	7693
Daniels, N E	6516	Edds, G T	7291	Fraser, J	7691	Green, B J	7330
	6999	Eddy, G W	7562	Frederick, G H	7318	Greenberg, R A	7331
Daniels, N W R		Edwards, B L	7292	Free, J B	6529	Greenham, L W	7332
Darbyshire, J H	7282	Edwards, C A	7656	Free, N W	6529	Greenwood, D	7691
Darne, A	7607	Edwards, P B	7293	Freeman, A E	7670	Gregory, D W	7333
Darrow, D I	7676	Edwards, J D	7696	Freeman, O A	7122	Griffin, D M	6759
Dast, N P	6889	Eggitt, P W R	7476	French, D W	6816	Griffin, G D	7090
Daum, R J	7666			French, S W	7560	Grinewitsch, C	7265
Dauterman, W C	6570	Ehrlich, H G	7711	Frolich, E F	6718	Grogan, R	6757
David, J S E	7458	Ehrlich, M A	7711	Frosheiser, F I	6751	Groves, H F	7397
David, W A L	6517	Eichenmuller, J J	7082	Frunival, B F	7351	Grumbles, L C	7311
	6670	El Nasri, M	7294	Fukuto, T R	6687	Gudauskas, R T	6536
Davies, E T	7362	El-Hashimi, M	7593			Guernsey, P S	7702
Davies, S F M	7618	El-Helaly, A F	6743	Fulton, N D	6710	Gunter, F A	7661
Davis, R A	6732	Eldefrawi, M E	6679	Fulton, R H	7720	Gupta, J C	7092
Davison, A D	6733	Ellender, R D	7295	Furgala, B	6611		7093, 7094, 7095
Dawson, P S	7282	Ellertson, F E	7003	Furusawa, E	7313		7096, 7097
de Monge, E	6666	Elliot, M	7690	Furusawa, S	7313	Gupta, M L	6537
De Pew, I J	7672	Ellis, D E	7276	Gabriel, B P	6530	Gupta, N K	7091
Dean, D J	7283	Ellis, H A	7296	Gabrusewicz-garcia, C	6671		7092, 7093, 7094
Deangelis, C	7468	Ellis, L L	7570	Gale, C	7314		7095, 7096, 7097
DeCamp, C E	7481	Elmer, H S	7004			Gustin, R D	6927
Decker, G C	7564	Emerson, J L	7297	Gale, G O	7315	Gyriscio, G G	6453
	7668			Galindo, J	6752		6614, 7020
Delez, A L	7297	Empson, D W	7656	Gallagher, P	7316	Hadlow, W J	7334
	7298	Endo, R M	6744	Gallagher, M E	7724	Haelterman, E O	7335
DeMott, H E	7088			Gallun, R L	7078	Hagedorn, D J	6872
Dennis, E B	7656	Eschle, J L	6532	Gannon, N	7668		6878
Deshmukh, D R	7284	Ishbaugh, E L	7672	Garcia, C	6559	Hagen, K S	6627
Dethier, V G	6518	Eslyn, W E	6524	Gardiner, B G	7686	Haig, D A	7358
DeVay, T E	6891	Estes, Z E	6525	Gardiner, B O C	6517	Hall, H H	6659
DeViney, G J	7671					Hall, I M	6538
DeVult, H M	7434	Estrada, M G	7129	Garnsey, S M	6753		6539, 6640
	7445, 7451	Eubank, R	7299	Garon, C F	7317	Hall, L W	7336
Dewey, J E	7666	Evans, E T R	7416	Garren, K H	6754	Hall, S A	7337
DeZoeten, G A	6901	Evans, R K	7272			Haller, C J	7338
Dhanda, M R	7389	Evans, W C	7300	Gastel-Jansen, A V	7318	Halnan, C R E	7499
Dickason, E A	7000	Evans, W G	6453	Geller, E H	7611	Halpin, F B	7613
Dickey, R S	6734	Evans, W M	7283	Gentner, W A	7123	Hamdy, A H	7314
Dietz, A	6519	Everly, R T	7005	Genung, W G	7006		7339
Dilbone, R P	7285	Exner, B B	6781	George, B W	7007	Hamdy, M K	7730
Diller, J D	6735	Eylon, E	7375	Georgopoulos, S G	7713	Hamilton, B R	7606
Dimmock, J R	7710	Faber, J E	7434			Hamilton, K C	7124
Dimopoulos, G T	7295			Gerdemann, J W	6782	Hamm, J J	6540
	7317	Fahey, J E	7267			Hammer, R S	7545
Dineen, J P	6638	Fairchild, M L	7670	Gerold, J L	6531	Hampton, R O	6760
Ditman, L P	6990	Faust, R M	6525	Gersdorff, W A	6680		6761
	7017, 7675					Hamstead, E O	7011
Dobson, R C	7667	Fawcett, C H	6746	Gertler, S I	6680	Hanks, R W	7098
Dodd, F H	7256	Fawell, E V	7523	Getzin, L W	7008	Hanna, R L	7074
Dogra, G S	6520	Fawi, M T	7268	Geyer, G H	7319	Hansens, E J	7569
Doling, D A	6694	Fay, R W	6677	Giamalva, M J	7089	Hanson, E W	6804
Doll, E R	7286	Fedde, M R	7136	Gibson, T E	7320	Harbour, H E	7740
	7485	Feldman, A W	7098			Harbourne, J F	7340
Dollahite, J W	7354	Fennell, C	7301	Gibson, W W C	7322	Hardin, L J	7669
Done, J T	7410	Fenner, H	7680			Hare, W C D	7341
Donley, D E	7001	Fenster, C R	7120	Gilmore, J E	7040	Harein, P K	7012
Doran, G P	7287	Fenton, B K	7302	Gilpin, G	7075	Harjung, M K	6952
Dorough, H W	7563	Fenwick, H S	6747	Gingrich, R E	6532	Harms, R H	7143
Doucette, C F	6452	Ferguson, V	7648				7342, 7508, 7509
Dougherty, E	7498	Fergus, C L	6748	Giordani, G	6533	Harpaz, I	6488
Douglas, M H	7689	Ferguson, W	7609	Girish, G K	6534	Harper, J A	7687
Dowler, W M	6736	Ferron, P	6652	Gitter, M	7259	Harris Jr, E D	7013
Downes, J A	6521	Firfer, H S	7555			Harris, J J	7570



## AUTHOR INDEX

Macadam, I

Harrison, A L	6762	Holmes, J R	7360	Kais, A G	7716	7690,	6803	
Harrison, F F	7014	7361,	7362	Kaiser, W J	6777	Krstic, M M		6791
Harrison, G F	7274	Holmes, J W H	7363	Kaley, G S.	7387	Krueger, H R		6570
Harrison, I R	7691	Holmes, R G	7364	Kallfelz, F A	7388	Krugman, S L		6913
Harrison, J	7343	Holtman, D F	7518	Kalra, D S	7389	Kuc, J		6801
Harry, E G	7344	Hoogstratten, H	7365	Kanwar, K C	6562	7736		
7345		Hooker, A L	6767	Kanwar, U	6563	Kuhr, R J		7717
Harshbarger, J C	6541	Hopkins, A R	7227	Kaufman, D D	6778	Kuntz, J E		6831
Hart, C H	7346	Hopkins, D L	7366	Kaufman, J	6779	Kwolek, W F		6659
Hart, J A	7614	Horn, N L	6772	Kaur, S	6623	Laarman, J J		6531
Hartenstein, R C	7015	Horner, C E	6773	6624		LaHrecque, G C		6574
Harvey, A E	6765	Howard, C M	6774	Kawakishi, S	7741	Laigo, F M		6571
Harvey, R W	7347	Howarth, J A	7425	Kay, H L	7125	6572		
Harvey, T L	6542	Hovatt, W P	7367	Kear, J	7343	Lal, R		6622
Hasamoto, Y	6552	Hove, W L	7018	Kearns, C W	6579	7679		
Haselden, C S	7348	7019		Keeble, S A	7390	Lalich, J J		7138
Hashimoto, Y	6553	Howell, D G	7368	Keeler, R F	7249	Lamont, G H		7399
Hason, E W	6924	Howell, J M	7369	Keeling, H L	6780	Lancaster, M C		7290
Hassett, C C	7753	Howell, J McC	7370	Keeling, M D	7259	Langford, G S		7572
Hatheway, W H	7055	Howland, A F	7076	Kellen, W R	6515	Langlois, H E		7681
Hawkins, J L	6635	Huddleston, E W	7020	6564		Langman, H A		7400
Hawkins, W W	7349	Huff, J W	7311	Kellogg, K K	7391	Langridge, D F		6573
Hawn, E J	6795	Huger, A	6550	Kelsey, L P	7024	Larson, L H		6898
Haxby, D L	7350	Huger, A M	6551	Kenaga, E E	6688	Laub, C A		6792
Hayes, A W	7714	Hugh-Jones, M E	7615	Kerr, A D	7130	Lauder, I M		7415
Haynes, O L	6991	Hughes, W A	7371	Kerr, E D	7101	Lavigne, R		7680
Hays, S H	7571	Hukuhara, T	6552	Kerr, T W	7025	LaVoipierre, M M J		7609
Hazel, N W	6998	6553		Kerry, J H	7466	Lawson, R H		6793
Heald, C M	7099	Hunt, G C	7372	Kesner, C D	7126	Leach, J G		6774
Heald, P J	7351	Hunt, L M	7694	Keyes, M C	7392	Leason, A		7401
Heggstad, H E	6815	Hunter, R E	6712	Keymer, I F	7618	Leasure, J K		7742
Behn, E R	6904	Husband, R W	6458	Khadga, H H	6781	Leath, K T		6794
Heimbeck, L S	6763	Hutchinson, T C	7715	Kido, H	7064	Leathers, C R		6708
Heimpel, A M	6543	Hylton, A R	6554	Kieckhefer, R W	7026	Lebeau, J H		6795
6544,	6546	Iffey, J	7373	Kienholz, E W	7137	Leben, C		6796
Hejl, J M	7352	7374,	7470	Killinger, G H	6870	Lebsack, K L		7041
Helsdon, H L	7553	Ignoffo, C M	6555	Kilpatrick, R	7542	Lee, D C		6447
Helton, A W	6764	6556,	6557	Kilpatrick, R A	6790	Lehman, W F		7046
6765		6559,	6596,	Kimble, K A	6937	Lehnert, T		6508
Hemsley, L A	7344	Imre, Z	7375	King, A S	7243	Lehr, R		7032
7353		Ingham, H	7275	King, H C	7393	Leigh, T F		6984
Henderson, C F	6455	Inglis, J M	7275	King, J A	7394	Levin, M D		6461
Hendrix Jr, F F	6954	Ipe, I M	6560	King, N H	7395	Levin, R E		7695
Henneberry, T J	7031	Irfan, M	7376	King, W E	6565	Levine, N D		7616
7032		7377		Kingwill, R G	7256	Lewis, G		7455
Henry, J E	6547	Ito, Y	7504	Kinsley, R N	7652	Lewis, G D		6925
Henson, J H	7354	Ivens, V	7616	Kirk, R	7753	Lewis, T		6462
Hepting, T H	6766	Ivey, M C	7665	Kirk, R E	7027	Libman, G		6797
Hernandez, T P	7089	Jaartsveld, F H J	7536	7078		Lichtenstein, E P		7672
Herrick, J H	7577	Jabbar Miah, M A	6880	Kirkby, W W	7613	7673		
Hervey, G E L	6588	Jackson, J H	7678	Kirkpatrick, J D	7114	Lieberman, F V		7046
Hervey, G E R	7033	7694		Kirkpatrick, M E	7671	Liles, J N		6575
Heydecker, W	6721	Jackson, R F	7378	Kissam, J H	6566	Lindgren, J E		6515
Hibbitt, K G	7233	Jackson, R W	6659	Klarman, W J	6782	6564		
Hightower, H G	6496	James, L F	7249	Klarman, W L	6783	Lindgren, D L		7645
Hilchey, J D	7754	Janes, N F	7690	6784		7650		
Hildebrandt, A C	6865	Jantz, O K	7758	Kleeberg, H H	7396	Lindley, W H		7402
6907,	7756	Jay, S C	6529	Kliener, I O	7258	Lindquist, D A		6986
Hill, T J	7332	Jaycox, E R	7021	Klijewicz, J M	6703	Lingappa, H T		7799
Hills, G J	6548	Jenkins, W R	6732	Kline, D M	6835	Lipa, J J		6576
6684		7099		Klisiewicz, J M	6785	6577		
Hilu, H M	6767	Jennings, J E	7246	Kloutz, F R	7397	Lipa, J L		6578
Himeno, M	6567	Jensen, F L	7064	Knapp, F W	7573	Lipke, H		6579
Hindson, J C	7355	Jerath, M L	6561	7574		Lirenman, D S		7403
Hine, R H	6768	Jimenez, F A	6811	Knipling, E F	6672	Liska, H J		7681
6769		Joel, D	7545	Knoke, J K	7057	Lister, R M		6798
Hiroyoshi, T	6676	Johanns, C J	7379	Knorr, L C	6786	Littlejohn, A I		7404
Hirumi, H	6770	Johnsen, R E	7670	Knowles, R C	7393	Liu, L C		7657
Hitchcock, S W	7016	Johnson, J A	7052	Knox, D A	6508	Livingston, C W		7437
Hitchner, S H	7231	Johnson, R H	7022	Ko, W H	6787	Lloyd, T S		7405
Hix, S M	6699	Johnson, R H	7380	Koch, E J	6735	Lockwood, J L		6799
Ho, M	7468	Johnson, W T	7572	Kochan, W J	6764	Loegering, W Q		6876
Hoag, W G	7357	Johnstone, H C	7381	Kohler, P H	7582	Logan, R M		7718
Hoare, M	7358	Joly, P	6586	Kolbezen, M J	6741	Lombard, L S		7555
Hodges Jr, C S	6771	Jones, A	7256	6742		Loos, M A		7658
Hodges, H F	7078	7382		Komano, T	6567	Loosmore, R M		7406
Hodson, A C	6456	Jones, C M	7579	Kommedahl, T	6840	Lopez-Frias, L C		7644
7643		Jones, E T	7052	7128		Lorbeer, J W		6779
Hoefler, J A	7276	Jones, F G W	7100	Konicek, D E	7102	Lowie, L H		7732
Hoekstra, W G	7137	Jones, G R	7617	Koolheki, H K	6728	Lucas, J M S		7619
Hoffman, R A	6549	Jones, P J	6775	Kosuge, T	6703	Luchsinger, D W		7407
Hoffmann, J A	6862	Jones, R S	7383	Kothari, K L	6788	Lucke, V M		7408
Hofkens, C	7414	Jones, T H	7384	Kraft, A A	7651	Luckmann, W H		7028
Hofmaster, R N	7017	Jonsson, G	6509	Kramer, J P	6459	Luke, H H		6832
7675		Jordan, W J	7385	6568		Lukefahr, M J		7029
Hofstad, M S	7359	Joshi, L M	6806	Kramer, L L	7398	Lyda, S D		6838
Holbrook, F R	6457	Joshua, J O	7386	Krause, G F	6460	Lykken, L		7760
Holbrooke, G	7303	Jotwani, M G	7023	7573		Lysenko, O		6463
Holdaway, F G	6611	Jutilla, J W	6547	Kreig, A	6569			
6995		Kahn, R P	6776	Kreitlow, K W	6789	Macadam, I		7409

# AUTHOR INDEX

Macadan, I

7620,	7621	Mehra, B P	6591	Myers, R F	7103	Patel, B K	7044
Macadan, I		Meiners, J P	6862	Nadakavukaren, M J	6821	Patel, M	6877
MacCarthy, H R		Meinershagen, W A	7310	Naegle, J A	6656	Patel, N G	6609
Mackay, R R		Mellick, P W	7426	Naidu, M B	6604	Patel, P N	6851
7597		Mendoza, C	7007	Nair, V M G	6831	Patel, V C	7044
MacKellar, J C	7623	Menke, G H	6813	Nakanishi, T	6841	Paterson, J S	7455
Mackenzie-Wintle, H	7255	6814		Namiki, M	7741	Patil, S S	7723
Maclean, C W	7287	Menser, H A	6815	Narain, A	6832	Pattison, I H	7456
MacLennan, D B	6801	Menzer, R E	7675	Narang, G D	7444	Paulus, A O	6852
MacLeod, A J	7461	Menzies, J D	6953	Narda, R D	6601	Pavan, C	6610
MacLeod, N S M	7411	Mercado, T I	7427	Natalizi, G	6491	Paxton, T	6853
Macomb, M L	6927	Merriam, J R	6674	Neave, F K	7256	Payne, J M	7457
Madsen, H F	7030	Merrill, W	6816	Neel, W W	7570	Pearson, B C	7690
Magie, A R	6802	Metcalf, R L	7035	Neiswander, C R	6995	Pearson, C C	7258
6967		Michael, A S	6508	Nelson, E P	7363	Pearson, J K L	7628
Maguire, M F	7558	Michel, J F	7624	Nelson, E V	6602	Peck, E F	7633
Mahadeva, S	7127	Michna, S W	7428	Nelson, G A	6833	Pedersen, J R	6460
Mai, W F	6749	Milbrath, J A	6729	Nelson, M R	6834	7045	
Mains, E B	6464	6793,	6818	Nelson, P E	6734	Pelletier, R L	6949
Majumdar, N	7050	Millecan, A A	6836	Nelson, R R	6835	Penny, R H C	7458
Malcolm, H A	7503	Miller, B S	7052	Nichols, C W	6836	Pepin, G A	7320
Malik, L	6562	Miller, D L	7135	Nickerson, W J	7677	Perry, K T E	7419
Malone, J C	7346	Miller, E R	7429	Nielson, M W	6603	Pesho, G R	7018
Manglitz, G R	6803	Miller, P R	6819	Nipper, W A	7566	7019,	7046
Mankau, R	7719	Miller, W C	7430	Noel, J K	7445	Peters, D C	7007
Mann, H D	7665	7431,	7432	Noel, P R B	7446	7648	
Mann, T B	7412	Miller, W E	6465	Norris, D M	6477	Petersen, D B	6736
Maramorosch, K	6770	Millikan, D F	6820	O Bannon, J B	7106	Peterson Jr, G D	6687
6932		Mills, G D	7230	O Brien, J D P	7447	7586	
Marcovitch, S	6581	Milstead, J E	6582	O Brien, M J	6837	Peterson, A G	6611
Mare, C J	7413	Miner, F D	7036	O Brien, R D	6570	Peterson, G D	6640
Marsboom, R	7414	Mink, G I	6821	O Dell, B L	7139	Peterson, G H	6854
Marsh, J C	7251	Minkin, J L	7575	O Keefe, L E	7041	Peterson, G W	6855
Martignoni, M E	6582	Mircetich, S M	6979	O Malley, J E	7652	Peterson, K J	7459
Martin, B	7415	Miskus, R	6679	O Reilly, H J	6810	Peterson, L C	6959
Martin, J P	7747	Mitchell, E D	7721	Obeid, H M	7268	Peterson, L K	7047
Martin, W B	7415	Mitchell, B L	7052	Ogawa, J M	6838	Pfadt, R E	7104
Martin, W J	7089	Mitchell, J E	7743	7750		Phadke, K G	6612
Martinez, E S	6804	Mitchell, R	6822	Ogawa, T M	6839	Pianka, M	7696
Martinez, M I A	7522	Mitsubashi, J	6592	Ohman, J H	6840	Pickard, E	6635
Martinsen, J S	7498	Mittal, O P	6675	7128		Pickard, J A	7746
Marty, E W	7629	Mittler, T E	6593	Ohno, Y	6567	Pickering, C M	7369
Mason, H C	7031	7037		Oku, B	6841	Pickett, R C	7005
7032		Miura, T	6594	Olander, H J	7448	Pier, A C	7448
Matejka, J C	6834	Mizianty, T J	6595	Old, K M	6842	7460	
Mathre, J H	6838	Mohanty, S B	7434	Oliver, D F	7626	Piercy, S E	7461
Mathre, T B	6839	Molello, J A	7435	Olney, C E	7025	7462	
Mathur, B I	6805	Moll, T	7436	Omar, A R	7246	Pierson, R E	7463
Mathur, L M L	6583	Monroe, R L	6776	Omaro De Sequeira, O	6843	Pilchard, E I	7616
Mathur, R L	6805	Montoya, E L	6557	Onodera, K	6567	Pilgrim, B I	7251
Mathur, S B	6584	6596,	6597	Orlob, G B	6845	Pimentel, D	6613
6585,	6636,	Mookherjee, P B	7071	Ormrod, A N	7370	Pineda, C R	6856
Matson, B A	7416	Moore III, S	7564	Orton, R G	7449	Pinkney, J M	7464
Matsui, C	6973	Moore, B S	6541	Osato, T	7504	7465	
Matsunura, F	7674	Moore, D H	7038	Osborne, A D	7384	Pinsent, P J N	7320
Matz, G	6586	Moore, J D	6823	Osburn, B I	7441	Piquett, P G	6680
Maurer, C L	6807	Moore, J N	6824	Osmani, Z	6604	6682	
Maurer, F T	7737	Moore, L D	6825	Ostwald, R	7560	Pirie, B M	7262
Mayes, P A	7417	Moore, M B	6879	Ota, A K	7646	7383	
Maynard, D E	7054	Moore, R W	7437	Owen, E C	7237	Flapp Jr, F W	7676
McAllan, J W	6587	Moreno, J D	6826	Owen, L N	7450	Plummer, G	7466
McCaig, J	7418	Morgan, F L	6827	Paden, J W	6953	Poinar Jr, G O	6614
McCarthy, B J	7419	Morris, O N	6598	Padmore, J M	6605	Polivka, J B	7048
McClellan, R O	7420	6599		Page, O T	7745	7105	
7501		Morris, R F	7039	Page, Z E	7246	Poole, D B R	7558
McCombs, C L	6808	Morrison, F O	6626	Paggi, P	7692	Porter, F M	6857
6968,	7732	Mortelmans, J	7414	Pajni, H R	6606	Porter, J E	7467
McDaniel, H A	7479	7637		Palmer, A C	7446	Postic, B	7468
McDiarmid, A	7255	Morten, D H	7438	Palotay, J L	7420	Potter, B S	6881
7421		Moseman, J G	6828	Panda, B	7451	Pound, G S	6758
McDonald, B E	7138	Mosier, J E	7439	Papasolomontos, A	6846	6884,	6965,
McDonald, W C	6809	Moss, J P	7440	Papavizas, G C	6847	7731	7722
McEnroe, W D	6673	Most, B	7625	6848		Pounden, W D	7339
McErlean, B A	7422	Mott, L O	7230	Pappelis, A J	6849	Powell, J D	7049
McEwen, F L	6522	Moulton, J E	7441	Parencia Jr, C R	7042	Powelson, R L	7723
6588,	7033	Mountney, G J	7652	Parker, H L	7043	Powers Jr, B R	6876
McGahan, M W	7720	Mshelbwala, A S	6681	Parker, J	7452	Powers, J J	7730
McGarr, R L	6597	Mulla, M S	7576	Parker, K G	6749	Powers, K G	7629
McGinnis, J	7142	Mullen, P A	7442	Parker, W B	7453	Pratt Jr, J J	7688
McGrath, H J W	7663	Muller, A S	6870	7627		Pratt, R M	6858
McIlwain, P K	7423	Munger, F	7040	Parkhurst, R T	7454	Price, C A	7129
McIntosh, D I	6810	Munnecke, D E	6829	Parmeter Jr, J R	6819	Price, R M	6711
McIntyre, T	7034	6869,	7744	6850		Pringle, R B	6889
McKay, K A	7424	Murakishi, H B	6830	Parrish, W B	6607	7755	
McKercher, D G	7425	Muramatsu, K	7741	Parrott, D M	7100	Proudford, R	7237
McLaughlin, R E	6589	Murphy, M A	7280	Parshad, R	6466	Prout, T	6667
McNelly, L B	7030	Murray, E D	6600	Paschke, J D	6487	Provvidenti, R	6859
McVey, D V	6811	Mussman, H C	7052	6571,	6572,	Pugh, L P	7469
Medler, J T	6590	Muth, O H	7443	Pass, B C	6528	Purdy, L H	6860
6812,	7026	Myers, D D	7616	Pate, T L	6479	6861,	6862



## AUTHOR INDEX

Swalles, G E

Purkayastha, B K	7050	Ross, E	7584	Seymour, C P	6916	Smythe, R V	6634
Quigley, P J	7470	Ross, G J S	7100	Shaikh, M U	6626	Snapp, O I	7062
Quinon, V L	6863	Ross, J P	6873	Shalla, T A	6901	7063	
Radeleff, R D	7578	Ross, R F	7488	6902		Snow, G F	6858
7677		Rotem, J	6874	Shand, A	7455	Snow, W E	6635
Ragan, H A	7420	Roth, A R	7562	Shannon, R O	7501	Soans, L C	6915
Ragetli, H W J	6955	Roth, L F	6875	Sharma, A K	6615	Sobers, E K	6916
Ragland, W L	7471	Rothenbacher, H	7489	Sharma, G C	7071	Solberg, R A	6720
Rai, B K	6534	Rowell, J B	6876	Sharma, R D	7113	Somers, E	7746
Ramanathan, S	7313	Roy, I	6877	Sharma, S P	6625	Sooter, C A	6917
Rangan, S R S	7472	Rubin, R	7631	6630		Sowell Jr, G	6918
Rangaswami, G	6864	Ruppel, E G	6878	Sharp, E L	6903	Spaeth, J	7709
Raniere, L C	6798	Ruppel, R F	7055	6904		Spalding, D H	6919
Rankin, J E F	7628	Rusk, H W	7670	Sharp, N C C	7502	Sparrow, W B	7346
Rao, B R S	6584	Russell, F E	6472	Shatla, M N	6905	Spence, J B	7246
6585, 6615,	6636	Russell, G E	6523	Shaw, C G	6882	Spence, L	6683
Rao, R R	7354	Russell, J D	7381	6883		Spencer, D M	6746
Ratcliffe, R H	7051	Ruzicka, J H A	7684	Shaw, F	7680	Spencer, E Y	6600
Raulston, G L	7473	Saari, E E	6879	Shaw, R D	7503	Spencer, J A	6920
Raun, E S	7007	Sackston, W E	6880	Shaw, W C	7131	Spurr Jr, H W	7756
7577, 7585		Sadek, S E	7490	Sheets, L W	7118	Srivastava, G P	6921
Ravenscroft, A V	6823	Saettler, A W	6881	Shepherd, A M	7110	Srivastava, P D	7134
Rawson, J W	6983	Safeeulla, K M	6882	Shepherd, R J	6906	Srivastava, R P	6584
Raymer, W B	6837	6883		Sherman, I	7283	6585, 6636	
Rea, G B	7474	Safford, J W	7491	Sherman, M	7584	St. John, S	7517
Redmond, H E	7437	Sah, B N	6591	Shimanuki, H	6617	St. Julian, G	6659
Reed, H	7448	Sampson, G R	7492	Shimizu, J T	6627	Stadelman, W J	7681
Reed, J P	7010	Samsinakova, A	6621	Shiratori, O	7504	Stafford, E M	7064
Reed, R E	7475	San Juan, M O	6884	Shirck, F H	7060	Stahmann, M A	6923
Reinert, R A	6865	Sanders, D A	7291	Shirlaw, J P	7505	Stair, E L	7535
Renfro, B L	6866	Sanders, R D	6515	Shomrony, A	7375	Stall, R E	6725
Resconich, E C	6867	Sandstedt, R	7109	Short, R V	7506	6792	
Revill, D L	6616	Sanford, L G	6467	Shorter, D A	6469	Stanley, W W	7669
Reynolds, H T	6687	Saplala, V L	7056	Shortino, T J	6507	Staples, R	6922
7065, 7084		Sarup, P	6622	Shupe, J L	7249	Staples, R C	6923
Reynolds, H W	7106	Sasser, J N	6885	Sievert, R C	6907	Starr, M P	6829
Rhyne, C	7029	Satija, R C	6623	Sigel, E M	6748	Stavely, J R	6924
Rich, A E	6868	6624, 6625		6890		Stearns, L A	7024
Richards, K	6497	Sattar, S A	7493	Sigh, A	6806	Steepp, T L	6925
Richards, W P C	7308	Saunders, J L	7057	Sill Jr, W H	6723	Steinhauer, J E	7653
Richardson, L T	6869	Saunders, P J W	6886	Silvernagel, M J	6908	Steinhaus, E A	6577
Richmond, D V	7746	Sauter, R A	7492	Simesen, M G	7507	6637, 6638	
Richmond, J W	7476	Savage, J E	7139	Simon, F G	7709	Steinkraus, K H	6648
7477		Saxena, P N	7023	Simpson, C F	7342	Steap, A R	7681
Riedel, S M	6617	Sayre, R M	6887	7508, 7509		Stepens, J F	7518
Riehl, L A	7580	Sbur, D E	7649	Simpson, R G	6628	Stephen, L E	7519
7581		Schaefer, K F	6468	7061		Stephens, J M	6501
Riker, A J	6907	Schalm, O W	7494	Simpson, W R	6747	6503	
7756		Scharen, A L	6888	Sinclair, J B	6781	Sterling, P D	6639
Risher, C F	7247	Scharpf, R F	6850	Sinden, J W	6748	Stern, D	7680
Rivers, C F	6684	Scheffer, R P	6889	6890		Stern, V M	6640
Roan, C C	7574	7755		Singh, C M	7510	6687, 7065	
Robbins, W E	6507	Schipper, I A	7423	Singh, D S	6622	Stevens, A J	7548
Robblee, A R	7140	Schisler, L C	6748	Singh, D V	7444	Stevenson, J P	6641
Roberts, D A	6870	6890		Singh, G R	7510	6642, 6643,	6644
Roberts, D H	7478	Schlichting, H E	6616	Singh, P	7679	Stewart, K W	6616
Roberts, D W	6618	Schlinger, E I	7058	Singh, S B	7510	Stewart, V R	6862
6619		Schmidt, C H	6657	Singh, Y	6475	Stockdale, H J	7585
Roberts, E D	7479	6658		6629		Stoddard, H	7633
Roberts, H E	7480	Schmitthenner, A F	6964	Singla, C L	6630	Stone, M W	7066
Roberts, J E	7107	Schnathorst, W C	6756	Singleton, T E	7511	7111	
Roberts, R H	7578	6891, 6892		Sinha, A K	6909	Stoner, W N	6926
7579, 7678		Schneider, I R	6969	Sinha, R B P	6612	6927	
Roberts, S J	7481	Schoettger, R A	7697	Sinha, R C	6910	Storm, L W	6928
Roberts, W C	6602	Schread, J C	7059	Slama, K	6580	Stouffer, R F	6929
Robertson, J M	7237	Schroeder, H W	6893	Sleesman, J P	7672	Stover, R H	6930
Robinson, E A	7425	6894, 6895		Smart Jr, G C	7632	Straiton, E C	7520
Robinson, R J	7052	Schroeder, P H	6896	Smart, A M	7464	Stratton, J	7521
Robocker, W C	7130	Schroeder, W T	6859	Smerlis, E	6911	Street, O E	6815
Robson, J	7482	Schulz, K R	7673	Smirnov, W A	6631	Streeter, D G	6931
7630		Schuster, M L	7109	6632		Streets, R B	6928
Roby, T O	7483	Scothorn, M W	7397	Smith Jr, T	6633	Streissle, G	6932
Rodrigues, C	7595	Scott, D H	6824	Smith Jr, W L	6912	Strickland, K L	7634
Rodriguez, J G	7053	Scott, G R	7495	Smith Jr, W T	7053	Strong, F E	6933
7054		Scott, H A	6897	7054		7067	
Rodriguez, J L	7580	Scott, H G	7575	Smith, C N	6518	Strong, R G	7645
7581		Scott, W A	7496	Smith, C T	7680	7649, 7650	
Roebuck, D E	7247	Scott, W N	7497	Smith, F G	6849	Studic, D	7522
Rogers, T D	6871	Scriver, L H	7310	Smith, G F	7512	Sullivan, R L	6676
Rogoff, W M	7582	Seaman, W L	6898	Smith, G S	7513	Sullivan, T W	7141
Rohde, R A	7108	Seibold, H R	7498	Smith, H C	7514	Summers, T E	6934
Roistacher, C N	6718	Selman, P L	7698	Smith, J S	7515	Sund, K A	7132
Rollinson, D H L	7484	Selman, I W	6695	Smith, J V	7516	Sunde, M L	7137
Romero, S	7724	Semal, T	6899	Smith, K M	6548	Sundheim, L	6935
Rooney, J R	7485	Seneniuk, G	6833	6684		Sutcher, V	6679
Rose, J H	7618	Sengbusch, H G	7583	Smith, P W	6590	Sutcliffe, N H	7476
Rosenbrook, W	6620	Senior, M	7499	6812		7477	
Rosencranz, E E	6872	Senturk, M	7493	Smith, R N	7243	Suter, J	6489
Rosenstein, B J	7486	Sequeira, L	6900	Smith, R S	6913	Sutherland, G N	7523
Ross, D B	7487	Serth, G W	7500	Smoot, J J	6914	Swalles, G E	7112

# AUTHOR INDEX

Swarup, G

Swarup, G	7113	Vats, L K	6482	Whitney, E D	6959	Zuber, M S	7648
Sweat, R I	7398	Vaughan, E K	6733	Whitney, W K	6688	Zummo, N	6981
Sweeney, S A	7719	Vaughn, L C	7538	7758			
Sweet, H A	6608	Veal, S D	6589	Wicks, G A	7120		
Swenson, K G	6645	Veen, K H	6651	Wight, P A L	7351		
Swindle, B C	7617	6652		Wilcox, J	7076		
Switzer, W P	7413	Vercruysse, J	7414	Wilcoxson, R D	6702		
7488		Verma, A C	6788	6866			
Tachibana, H	7725	Verma, S K	7073	Wildman, S G	6899		
Takahashi, N	7733	Vidler, B O	7598	6970,	6971		
Tamimi, S A	6936	Vidyasekaran, P	6864	Wiles, A B	6960		
Tamura, G	7733	Vincent, M M	6897	Wilford, B H	7077		
Tanada, Y	6646	Viswanathan, M A	6949	Wilhelm, S	6961		
6647		Vogt, G	7420	Wilkes, L H	7083		
Taschenberg, E F	7682	von Brand, T	7427	Wilkins, L M	7492		
7683		von Lustig-Lendva, E	7223	Wilkinson, G T	7550		
Tashiro, H	6648	Wada, E M	7425	7551			
Tatton, J O	7684	Wadhwa, S	6622	Willers, E H	7552		
Taylor, A M	7524	Wadley, B N	6950	Williams Jr, L P	7553		
Taylor, A N	7388	6951		Williams, B J	6962		
Taylor, E L	7635	Wagh, P V	7539	Williams, E B	6801		
Taylor, O C	6819	Wagnon, A K	6942	Williams, H E	6942		
Taylor, R H	6937	Wagnon, H K	6963	6963			
Taylor, T B	6938	Waldhalm, D G	7310	Williams, K R	7554		
Teakle, D S	7726	Waldron, W G	6472	Williams, L E	6778		
Terhaar, C J	7574	Waldroup, P W	7143	6964			
Terranova, A C	6654	7342,	7508	Williams, N D	6706		
Thatcher, R C	7068	Walker Jr, J K	7074	Williams, P H	6965		
Thayer, P I	6939	Walker, J C	6813	7722,	7731		
Theis, J H	7525	6851		Williamsom, A R H	7255		
Theodorides, J	6470	Walker, J L	6898	Williamson, W M	7555		
Theodorides, V J	7636	Walker, R G	7246	Wills, W H	6825		
Thienpont, D	7637	7336		Wilson, C D	7556		
Thomas Jr, W D	7737	Wall, B J	6653	Wilson, C L	6966		
Thomason, I J	6852	Wallace, L J	7540	Wilson, E E	6802		
Thomlinson, J R	7526	Wallesz, D P	7116	6967			
Thompson, C C	6649	Walley, J K	7640	Wilson, F D	6934		
Thomsen, L R	7527	Wallin, J R	7757	Wilson, H G	6574		
Thorpe, E	7638	Ward, J K	7334	Wilson, J C	7557		
Throneberry, G O	7667	Ware, G W	6654	Wilson, M C	7027		
Thurber, H E	7586	6655,	6686	7078			
Thurston, J R	7460	Warner, S D	7541	Wilson, R	6835		
Thurston, R	6528	Wasserman, R H	7388	Wilson, R K	7558		
Till, D H	7296	Watanabe, H	7741	Winstead, N N	6808		
Tilton, J E	7528	Watson, C R	7501	6968,	7732		
Tinline, R D	7706	Watson, D L	6656	Winston, J R	6914		
Todd, J R	7529	Watson, W A	7542	Winterfield, R W	7231		
Tolin, S A	6940	7543,	7544,	Wintrobe, M M	7251		
Tomlinson Jr, W E	7069	7641		Wistreich, G A	6511		
Tong, E H	7499	Weathers, L B	6852	Wolfenbarger, D O	7079		
Torgeson, D C	6941	Weathers, L G	6952	Wolfsberg, M P	6661		
Tracy, R L	7699	Webb, F E	7117	Woltz, S S	6775		
Trapp, A I	7314	Webb, J L	7607	Woo, Y K	7313		
Traylor, J A	6942	Webb, R E	6797	Wood, F A	7745		
6963		Weber, A F	7545	Wood, R K S	6909		
Treacher, R J	7530	Weber, D F	6953	Woodcock, J G	7699		
Treshow, M	6943	Weber, D J	6838	Woodford, M	7685		
Trione, E J	6944	7729,	7750	Woodside, A M	7080		
Trujillo, E E	6945	Wehlberg, C	6939	Worley, J F	6969		
Tsao, C H	7070	Weidhaas, D E	6657	Wright, A I	7458		
Tsao, P H	6946	6658		Wright, C G	6662		
7727,	7747	Weigel, C A	7075	Wu, J H	6970		
Tucker, H	7124	Weil, J	6586	Wu, J-h	6971		
Tuli, S	7071	Weinberger, J H	6942	Wu, T H	6899		
Turk, J L	7142	Weinburgh, H B	6677	Wynn Jr, W K	6972		
Turner, C W	7444	Weiner, B A	6659	Xeros, N	6663		
Turner, N J	7748	Weinhold, A R	6954	6664			
Turner, P D	6947	Weintraub, M	6739	Yadava, R L	6665		
Turner, T	7531	6955		Yamaguchi, A	6973		
7532,	7533,	Weipers, W L	7262	Yamaguchi, S	7708		
Turnipseed, G F	7072	Weiser, J	6473	Yamamoto, R	7559		
Tuttle, D M	7118	6474,	6660	Yamamoto, R T	7081		
Tutton, E A	7406	Welch, L C	7534	Yamanaka, W	7560		
Tweedy, B G	7749	Wells, D F	7691	Yang, C Y	7743		
Underdahl, N R	7534	Wells, J M	6956	Yarwood, C E	6974		
7535		Wells, K	6933	6975,	6976		
Vago, C	6650	Wells, R W	7677	Yohe, J M	7139		
6660		Welty, R E	6957	Young, G A	7398		
Vair, C A	7463	Wene, G P	7118	7534,	7535		
Vallely, T F	7480	Wenke, M	6699	Young, R G E	7399		
Van Den Bosch, R	7065	Werring, D F	7407	Young, W R	7023		
Van Der Schaaf, A	7536	Wesselinoff, W	7546	Yu, J	7733		
Van Der Zwet, T	6948	Wester, R E	6958	Zaiman, H	7611		
Van Gundy, S D	7114	Westgarth, D R	7256	Zaunmeyer, W J	6977		
Van Hoeve, K	7537	Westlake, W E	7678	Zeitoun, F M	6743		
Van Tassell, E R	6471	Wheeler, O R	7730	Zeledon, R	6666		
VanDenburgh, R	6990	White, J B	7547	Zentmyer, G A	6752		
Vargus-gonzales, O F	7115	7548		6978,	6979		
Varney, E H	6798	Whiteford, R B	7549	Zettler, F N	6980		
6925		Whitehair, C K	7540	Zimmerman, W J	7642		



# ORGANIZATION INDEX

Agricultural Inst., Dublin, Ireland				Forest Research Laboratory	6911
Animal Nutrition And Biochemistry Dept.	7558			Canada Dept. Of Agriculture, Belleville, Ont.	
Agricultural Inst., Dunsinea, Castleknock, Co. Dnblin				Entomology Research Institute For Biological Control	
7608				Research Branch	6504
Agricultural Institute, Dnblin, Ireland				Canada Dept. Of Agriculture, Belleville, Ontario	
Animal Production Division	7280			Entomology Institute For Biological Control	
Agricultural Marketing Service, Beltsville, Md.	6912			Research Branch	6501
Agricultural Research Council Institute, Berkshire, England				Canada Dept. Of Agriculture, Belleville, Ontario	
Research On Animal Diseases	7457			Entomology Research Institute For Biological Control.	
Agricultural Research Council, Berkshire, England				Research Branch	6503
Institute For Research On Animal Diseases	7610			Canada Dept. Of Agriculture, Belleville, Ontario	
Agricultural Research Council, Berkshire, England				Entomology Research Institute Of Biological Control	
Institute For Research On Animal Diseases.	7358			Research Branch	6499
Agricultural Research Council, Cambridge, England				Canada Dept. Of Agriculture, Belleville, Ontario, Canada	
Unit Of Insect Physiology	6517			Research Institute	
Agricultural Research Council, Cambridge, England				Research Branch	6502
Virus Research Unit	6548	6663	6664	Canada Dept. Of Agriculture, Bellville, Ontario, Canada	
Alabama Polytechnic Institute, Auburn				Research Institute	6500
Albert Einstein College Of Medicine, Bronx, N.Y.				Canada Dept. Of Agriculture, Fredericton, New Brunswick	
Animal Institute				Research Station	7745
Dept. Of Preventive And Environmental Medicine				Canada Dept. Of Agriculture, Harrow, Ontario	
Dept. Of Pathology	7611			Research Station	6887
Alexandria University, Alexandria, U. A.R.				Canada Dept. Of Agriculture, Hull, Quebec	
Faculty Of Agriculture				Animal Diseases Research Institute	
Plant Pathology Dept.	6743			Animal Pathology Laboratories	
American Cyanamid Co., Princeton, N.J.				Health Of Animals Division	7265
Agricultural Division	7315			Canada Dept. Of Agriculture, Saskatoon, Saskatchewan	
Animal Health Research Centre, Uganda, Africa	7484			Research Station	
Animal Health Trust, Essex, England				University Sub Post Office	7706
Farm Livestock Research Centre	7487			Canada Dept. Of Agriculture, Summerland, B.C.	
Animal Health Trust, Suffolk, England				Research Station	6810
Equine Research Station	7430			Canada Dept. Of Agriculture, Vancouver, B.C.	
Annamalai University, Annamalaiagar, Madras, India				Research Station	
Dept. Of Agriculture				Entomology Section	6800
Microbiology Laboratory	6864			Canada Dept. Of Agriculture, Winnipeg, Manitoba	
Apicultural Research Unit, Ferntree Gully, Australia				Research Station	6809
Dept. Of Agriculture	6573			Catholic University of America	6471
Arizona Agricultural Experiment Station, Tucson	7124			Central Veterinary Laboratories, Weybridge, England	7288
Army Chemical Center, Md.				Central Veterinary Laboratory, Weybridge, Eng.	7264
U.S. Army Chemical Warfare Laboratories				Central Veterinary Laboratory, Weybridge, England	7225
Physiology Division	7753			7259 7320 7321 7478 7556 7612	7618
Auburn University	6467	6992	7662	Central Veterinary Laboratory, Weybridge, England	
Auburn University				Dept. Of Virology	7282
Agricultural Experiment Station				Chas. Pfizer And Co., Inc., Terre Haute, Ind.	7636
Dept. Of Botany And Plant Pathology	6536			Clemson Agricultural College, Columbia, S.C.	7247
Auburn University				Clemson College	
Agricultural Experiment Station				Poultry Science Dept.	7518
Dept. Of Zoology	6983			Clemson University	6565
Auburn University				Colorado State University, Fort Collins	
Agricultural Experiment Station				College Of Veterinary Medicine	7463
Dept. Of Zoology-entomology	6505			Colorado State University	7277
Battelle Memorial Institute, Richland, Wash.				Colorado State University	7697
Pacific Northwest Laboratory				College Of Veterinary Medicine	
Biology Department	7501			Dept. Of Pathology And Microbiology	7435
Beecham Res. Labs. Ltd., Brentford, England				Colorado State University, Fort Collins	6699
Product Research Division	7382			Columbia University	6671
Beecham Research Laboratories, Ltd.	7256			Cooper Technical Bureau, Berkhamsted, Eng.	7346
Benger Laboratories Ltd., Cheshire, England	7242			Cooper Technical Bureau, Berkhamsted, England	7503
Biologicky Ustav CSAV, pathologie Hmyzn, Praha, Czech.				7740	
6474				Cornell University	6453
Blue Cross Animal Hospital, London, England	7429			Cornell University	6917
Blue Cross Animals Hospital, London, Eng.	7470			Dept. Of Plant Pathology	7020
Boots Pure Drug Co. Ltd., Nottinghamshire, England				Cornell University, Ithaca, N.Y.	6613
Veterinary Science Division				Cornell University, Ithaca, N.Y.	6959
Research Dept.	7664			Dept. Of Agronomy	6822
Boyce Thompson Institute, Yonkers, N.Y.	6770			Cornell University, Ithaca, N.Y.	
6941 7749				Dept. Of Entomology	6656
Bristol Health Dept., England				Cornell University, Ithaca, N.Y.	7666
Bristol University, England	7255			Dept. Of Plant Pathology	6696
Dept. Of Veterinary Anatomy	7243			Corvel Inc., Omaha, Nebraska	6704
Bristol University, England				Cranberry Experiment Station	6734
Dept. Of Veterinary Medicine	7362			Dept. Of Entomology And Plant Pathology	7701
Bristol University, England				Crops Research Division, Beltsville, Md.	7492
School Of Veterinary Science				6888	7069
Dept. Of Veterinary Medicine And Surgery	7458			Cyprus Ministry of Agriculture and Nat. Resources, Nicosia	6730
Bntler Company Mushroom Farm, Inc., West Winfield, Pa.				Agricultural Research Institute	7697
6890				Czechoslovak Academy Of Sciences, Prague, Czechoslovakia	
Bnited Chicken Co. Ltd., Sussex, England	7353			Institute Of Entomology	6621
C. Brewer And Co., Ltd., Hilo, Hawaii	7132			Czechoslovakian Academy Of Sciences, Prague	
California Chemical Company, Richmond	7737			Institute Of Biology	
California Dept. Of Agriculture, Riverside	6858			Laboratory Of Insect Pathology	6473
California Dept. Of Agriculture, Sacramento	6836			Delaware Agricultural Experiment Station, Newark	7024
6963 7021 7102				Dept. Of Agriculture, Katmandu, Nepal	6781
Canada Agriculture Research Station, Lethbridge, Alberta				Dept. Of Agriculture, Mauritius, U.K.	7607
7112				Dept. Of Agriculture, Nassau, Bahamas	7302
Canada Agriculture Research Station, Lethbridge, Alberta				Dept. Of Agriculture, Salem, Ore.	
Plant Pathology Section	6795			Veterinary Division	7474
Canada Agriculture, Vancouver, B.C.				Dept. Of Forestry Of Canada, Quebec, Canada	
Research Station	6955			Forest Research Laboratory	6631
Canada Department of Forestry and Rural Develop., Sillery				Dow Agrochemicals Ltd., King's Lynn, Norfolk, Eng.	7601



## ORGANIZATION INDEX

PAGE 180



## ORGANIZATION INDEX

PAGE 181



## ORGANIZATION INDEX

Rothamsted Experimental Station, Harpenden, England Bee Dept.	6447	6483	6484	The Connecticut Agricultural Experiment Station The Connecticut Agricultural Experiment Station, New Haven	7059
Royal Veterinary And Agricultural College, Copenhagen Laboratory For Special Pathology And Therapeutics			7507	The Johns Hopkins University, Baltimore, Md. School Of Hygiene And Public Health	
Royal Veterinary College, Bertfordshire, England Dept. Of Medicine			7442	Dept. Of Pathobiology	6554
Royal Veterinary College, Hertfordshire, England Dept. Of Surgery			7538	The Ohio State University, Wooster Ohio Agricultural Experiment Station	
Royal Veterinary College, London, Eng. Beaumont Hospital			7238	Dept. Of Botany And Plant Pathology	6796
Royal Veterinary College, London, England Dept. Of Physiology			7602	The Pennsylvania State University, University Park Dept. Of Zoology And Entomology	6633
Royal Veterinary College, London, England Division Of Biochemistry			7417	The Rockefeller Foundation, Bogota Colombian Agricultural Program	7055
Rutgers - The State University			7657	The State University Of New Jersey Dept. Of Entomology	7010
Rutgers - The State University, New Brunswick, New Jersey Department Of Plant Biology			6925	The State University, New Brunswick, N.J. The State University, Utrecht, Netherlands	7568
Rutgers State University, New Brunswick, N.J. Dept. Of Entomology			7647	Institute For Veterinary Surgery Dept. Of Roentgenology	7318
Rutgers University Dept. Of Plant Biology			7129	The Wildfowl Trust, Slimbridge, Glos.	7343
Rutgers University, New Brunswick, N.J.	6896		7099	Tidewater Research Station, Holland, Va.	6754
Sankyo Company, Ltd., Shinagawa-Ku Tokyo, Japan Takamine Laboratory			6841	Twyford Laboratories Ltd., London, England U. S. Dept. Of Agriculture	7351
Santiago, Chile Food And Agriculture Organization Of The United Nations				Agricultural Research Service Entomology Research Division	6452 6549 6680
Zoonoses And Preventive Medicine	7522			7032 7060 7062 7665	
Schering Corp., Madison, Wis. Animal Health Division				U. S. Dept. Of Agriculture Forest Service	
American Scientific Laboratories School Of Veterinary Medicine			7629	Lake States Forest Experiment Station	6465
University Of California, Davis School Of Veterinary Medicine, Cambridge			7307	U. S. Dept. Of Agriculture, Beltsville, Md Agricultural Research Division	6824
Dept. Of Animal Pathology			7416	Crops Research Division	
School Of Veterinary Medicine, Cambridge, England			7294	U. S. Dept. Of Agriculture, Beltsville, Md. Agricultural Research Service	6682
7506				Entomology Research Division	
Scottish Horticultural Research Institute, Dundee, Scotland				U. S. Dept. Of Agriculture, Fort Collins Forest Service	
6798				Rocky Mountain Forest And Range Experiment Station	7077
Sericultural Experiment Station, Suginami-ku, Tokyo, Japan Dept. Of Pathology			6478	U. S. Dept. Of Agriculture, Kerrville, Tex. Agricultural Research Service	
Shaver Poultry Breeding Farms Ltd., Bawdeswell, England			7245	Entomology Research Division	7579
Sioux Falls Laboratories, S. Dak. Veterinary Diagnostic Services			7514	U. S. Dept. Of Agriculture, Laurel, Md. Forest Service	
South Dakota Agricultural Experiment Station, Brookings			7582	Northeastern Forest Experiment Station	7034
7582				U. S. Dept. Of Agriculture, Mesa, Ariz. Agricultural Research Service	6603
South Dakota State College, Brookings Dept. Of Plant Pathology		6833	6845	Entomology Research Division	
Southern Regional Introduction Station, Experiment, Ga.			6918	U. S. Dept. Of Agriculture, Yakima, Wash. Agricultural Research Service	7565
Southwestern Great Plains Field Station, Bushland Texas Agricultural Experiment Station			6516	Entomology Research Division	
Spillers Ltd., Cambridge, England Technical Research Station			7476	U. S. Dept. Of Agriculture Agricultural Research Service	7671
Spillers, Ltd., Cambridge, Eng. Technological Research Station			7477	Human Nutrition Research Division	7510
State University College Of Forestry At Syracuse Univ., N.y.			7015	U.P. College Veterinary Science And Animal Husbandry, India Dept. Of Pathology And Bacteriology	
7015				U.S. Air Force, Duluth, Minn. 343D Dispensary	7391
State University Of New York, Buffalo College Of Education			7583	U.S. Army Qm Research And Engineering Center, Natick, Mass. Chemicals And Plastics Division	7754
State University, Utrecht, Netherlands Institute For Tropical And Protozoan Diseases.			7304	U.s. Department Of Agriculture Crops Research Division	6710
Veterinary Faculty	7304		7305	U.s. Department Of Agriculture. Agriculture Research Service	6751
Stored-product Insects Laboratory, Manhattan, Kan.			6688	Crops Research Division	
Tela Railroad Company, La Lima, Bonduras, Central America			6930	U.s. Department Of Agriculture, Belle Mead, New Jersey Agricultural Research Service	6779
Tennessee Agricultural Experiment Station, Knoxville			6581	Market Quality Research Division	
7669				U.s. Department Of Agriculture, Beltsville Agricultural Research Service	6790
Tennessee Valley Authority, Wilson Dam, Ala. Division Of Health And Safety			6635	Crops Research Division	
Malaria Control Branch			7311	U.s. Department Of Agriculture, Berkeley Forest Service	
Texas A And M University, College Station College Of Veterinary Medicine				Pacific Southwest Forest and Range Experiment Station	6913
Texas A And M University, College Station Texas Agricultural Experiment Station			7437	U.s. Department Of Agriculture, Brookings, South Dakota Agricultural Research Service	
College Of Veterinary Medicine Dept. Of Veterinary Microbiology			6596	Entomology Research Division	6927
Texas A. and M. University Texas Agricultural Experiment Station			7354	Northern Grain Insects Research Laboratory	
Dept. Of Entomology			6986	U.s. Department Of Agriculture, Clemson Agricultural Research Service	6736
Texas A. and M. University, College Station Texas Agricultural Experiment Station			6999	Crops Research Division	
College Of Veterinary Medicine Dept. Of Veterinary Pathology				Fruit And Nut Crops Research Branch	
Texas Agricultural Experiment Station	6496			U.s. Department Of Agriculture, East Lansing Agricultural Research Service	6881
Texas Agricultural Experiment Station, Bushland				Crops Research Division	
Texas Agricultural Experiment Station, College Station				U.s. Department Of Agriculture, Fort Collins Forest Service	6855
7074 7083				Rocky Mountain Forest and Range Experiment Station	
Texas Agricultural Experiment Station, Yoakum Plant Disease Experiment Station			6762	U.s. Department Of Agriculture, Logan Agricultural Research Service	



# ORGANIZATION INDEX

Crops Research Division							7090	Pacific Northwest Forest And Range Experiment Station Forest Service		6582
U.S. Department of Agriculture, Orlando								U.S. Dept. Of Agriculture, Davis, Calif.	6756	6891
Agricultural Research Service								U.S. Dept. Of Agriculture, Davis, Calif.		
Market Quality Research Division							6914	Agricultural Research Service		
U.S. Dept. Of Agriculture							7122	Crops Research Division		6785
U.S. Dept. Of Agriculture								U.S. Dept. Of Agriculture, Durham, N.C.		
Agricultural Research Service								Forest Service		
Crops Research Division							6862	Southeastern Forest Experiment Station		6771
U.S. Dept. Of Agriculture								U.S. Dept. Of Agriculture, Geneva, N.Y.		
Agricultural Research Service								Agricultural Research Service		
Entomology Research Division						6455	6494	Entomology Research Division		6648
6574	6657	6658	6672	6985	6988		7011	U.S. Dept. Of Agriculture, Glenn Dale, Md.		
7018	7031	7040	7042	7043	7046		7063	Agricultural Research Service		
7066	7070	7075	7111	7562	7578		7676	Plant Quarantine Division		6776
7678								U.S. Dept. Of Agriculture, Greenport, N.Y.		
U.S. Dept. Of Agriculture								Agricultural Research Service		
Agricultural Research Service								Animal Disease And Parasite Research Division		
University Of California, Davis							6892	Plum Island Animal Disease Laboratory		7498
U.S. Dept. Of Agriculture								U.S. Dept. Of Agriculture, Gulfport, Miss.		
Animal Disease And Parasite Research Division							7694	Forest Service		
U.S. Dept. Of Agriculture								Southern Forest Experiment Station		
Forest Service								Forest Disease Laboratory		7716
Southern Forest Experiment Station							7068	U.S. Dept. Of Agriculture, Houma, La.		6981
U.S. Dept. Of Agriculture								U.S. Dept. Of Agriculture, Kerrville, Tex.		
Agricultural Research Service								Agricultural Research Service		
Entomology Research Service							6556	Animal Disease And Parasite Research Division		7677
U.S. Dept. Of Agriculture, Albuquerque, N.M.								U.S. Dept. Of Agriculture, Kerrville, Tex.		
Forest Disease Laboratory							6524	Agricultural Research Service		
U.S. Dept. Of Agriculture, Ames, Iowa								Entomology Research Division		6532
Agricultural Research Service								U.S. Dept. Of Agriculture, Laramie, Wyo.		
Crops Research Division							7757	Agricultural Research Service		
U.S. Dept. Of Agriculture, Belle Glade, Fla.								Entomology Research Division		6617
Agricultural Research Service								U.S. Dept. Of Agriculture, Lincoln, Neb.		
Crops Research Division							6934	Agricultural Research Service		7019
U.S. Dept. Of Agriculture, Beltsville, Md.							6897	Entomology Research Division		
U.S. Dept. Of Agriculture, Beltsville, Md.								U.S. Dept. Of Agriculture, Logan, Utah	6950	6951
Agricultural Research Service							6732	U.S. Dept. Of Agriculture, Logan, Utah		
U.S. Dept. Of Agriculture, Beltsville, Md.								Agricultural Research Service		
Agricultural Marketing Service								Animal Disease And Parasite Research Division		7249
Horticultural Crops Branch							6919	U.S. Dept. Of Agriculture, Manhattan, Kan.		
U.S. Dept. Of Agriculture, Beltsville, Md.								Agricultural Marketing Service		
Agricultural Research Service							6977	Stored-Grain Insects Laboratory		7758
U.S. Dept. Of Agriculture, Beltsville, Md.								U.S. Dept. Of Agriculture, Olympia, Wash.		
Agricultural Research Service								Agricultural Research Service		
Beltsville Parasitological Laboratory								Animal Disease Eradication Division		7394
Animal Disease And Parasite Research Division							7483	U.S. Dept. Of Agriculture, Olympia, Wash.		
U.S. Dept. Of Agriculture, Beltsville, Md.								Agricultural Research Service		
Agricultural Research Service								Animal Health Division		7393
Crops Research Division			6724	6789	6815		6828	U.S. Dept. Of Agriculture, Portland, Ore.		
6837	6848	7123	7131					Forest Service		
U.S. Dept. Of Agriculture, Beltsville, Md.								Pacific Northwest Forest And Range Experiment Station		
Agricultural Research Service								Forest Disease Research		6722
Crops Research Division								U.S. Dept. Of Agriculture, Prosser, Wash.		
Plant Industry Station							6847	Agricultural Research Service		
U.S. Dept. Of Agriculture, Beltsville, Md.							7728	Crops Research Division		
Agricultural Research Service								Vegetables And Ornamentals Research Branch		6908
Entomology Research Division						6485	6507	U.S. Dept. Of Agriculture, Prosser, Wash.		
6508	6525	6526	6527	6544	6545		6546	Agricultural Research Service		
6649	6803	7230						Soil And Water Conservation Research Division		
U.S. Dept. Of Agriculture, Berkeley, Calif.								Northwest Branch		6953
Forest Service								U.S. Dept. Of Agriculture, Prosser, Wash.		
Pacific Southwest Forest And Range Experiment Station								Irrigation Experiment Station		6760
6705								U.S. Dept. Of Agriculture, Pullman, Wash.		
U.S. Dept. Of Agriculture, Blacksburg, Va.								Agricultural Research Service		
Agricultural Research Service								Crops Research Division	6860	7130
Crops Research Division							6737	U.S. Dept. Of Agriculture, Raleigh, N.C.		
U.S. Dept. Of Agriculture, Bogalusa, La.								Agricultural Research Service		
Agricultural Research Service								Crops Research Division		6727
Crops Research Division							6948	U.S. Dept. Of Agriculture, Salinas, Calif.		
U.S. Dept. Of Agriculture, Bozeman, Mont.								Agricultural Research Service		
Agricultural Research Service								Crops Research Division		6738
Entomology Research Division							6547	U.S. Dept. Of Agriculture, State College, Miss.		7454
U.S. Dept. Of Agriculture, Brookings, S. Dak.								U.S. Dept. Of Agriculture, State College, Miss.		
Northern Grain Insects Research Laboratory							6926	Agricultural Research Service		
U.S. Dept. Of Agriculture, Brownsville, Tex.								Crops Research Division		6960
Agricultural Research Service								U.S. Dept. Of Agriculture, State College, Miss.		
Entomology Research Division						6557	6559	Agricultural Research Service		
U.S. Dept. Of Agriculture, Brownsville, Tex.							7029	Crops Research Division		
Texas Agricultural Experiment Station								Entomology Research Division		6589
U.S. Dept. Of Agriculture, College Station, Tex.							6597	U.S. Dept. Of Agriculture, Stillwater, Okla.		
Agricultural Marketing Service								Agricultural Research Service		
Market Quality Research Division								Crops Research Division		6712
Field Crops And Animal Products Branch							6894	U.S. Dept. Of Agriculture, Tempe, Ariz.		
U.S. Dept. Of Agriculture, Columbia, Mo.							6895	Agricultural Research Division		
Forest Service								Crops Research Division		6708
Columbia Research Center								U.S. Dept. Of Agriculture, Tempe, Ariz.		
Central States Forest Experiment Station							6989	Agricultural Research Service		
U.S. Dept. Of Agriculture, Corvallis, Ore.							7712	Crops Research Division		
U.S. Dept. Of Agriculture, Corvallis, Ore.								Cotton Research Center		7106
Forest Sciences Laboratory								U.S. Dept. Of Agriculture, Tifton, Ga.		

# ORGANIZATION INDEX

Agricultural Research Service Entomology Research Division	6540	University Of Bristol Dept. Of Veterinary Medicine			7360
U.S. Dept. Of Agriculture, Urbana, Ill.		University Of Bristol, Eng.			
Agricultural Research Service Crops Research Division	6744	Dept. Of Veterinary Medicine			7361
U.S. Dept. Of Agriculture, Vincennes, Ind.		University Of Bristol, England			
Agricultural Research Service Entomology Research Division	6997	Dept. Of Bacteriology			7332
U.S. Dept. Of Agriculture, Washington, D.C.		University Of Bristol, England			7408
Agricultural Research Service	7229	Dept. Of Pathology			
U.S. Dept. Of Agriculture, Washington, D.C.		University Of Bristol, England			7233
Agricultural Research Service		Dept. Of Physiology			
Animal Inspection And Quarantine Division	7352	University Of Cairo, Egypt			
U.S. Dept. Of Agriculture, Whittier, Calif.		Faculty Of Agriculture			6445
Agricultural Research Service		University Of California, Riverside			
Entomology Research Division	7076	Citrus Experiment Station			7581
U.S. Dept. Of Health, Educ. And Welfare, Hamilton, Mont.		University Of California, Berkeley	6757	6777	6850
National Institutes Of Health		6938 6954 6961 6975	6976	7030	7717
National Institute Of Allergy And Infectious Diseases	7334	7726			
U.S. Dept. Of Health, Education And Welfare, Bethesda, Md.		University Of California, Berkeley			
Public Health Service		Dept. Of Biological Control			
National Institute Of Allergy And Infectious Diseases		Laboratory Of Insect Pathology	6577	6637	6638
Laboratory Of Parasitic Diseases	7427	6646 6647			
U.S. Dept. Of Health, Education, And Welfare, Atlanta, Ga.		University Of California, Berkeley			
Public Health Service		Dept. Of Entomology And Parasitology			6679
Bureau Of State Services		University Of California, Berkeley			
Communicable Disease Center	7575	Dept. Of Plant Pathology	6819	6867	6974
U.S. Dept. Of Health, Education, And Welfare, Atlanta, Ga.		7738			
U.S. Public Health Service		University Of California, Berkeley			
Bureau Of State Services		Division Of Entomology,			6593
Communicable Disease Center	7561	University Of California, Berkeley			
U.S. Dept. Of Health, Education, And Welfare, Savannah, Ga.		Division Of Invertebrate Pathology			6618 6619
U.S. Public Health Service		University Of California, Davis	6703	6753	6802
Bureau Of State Services		6839 6853 6901 6902	6937	6967	6984
Communicable Disease Center	7561	7067 7125 7729 7750			
U.S. Dept. Of Health, Education, And Welfare, Savannah, Ga.		University Of California, Davis			
U.S. Public Health Service		Dept. Of Botany			7708
Bureau Of State Services		University Of California, Davis			
Communicable Disease Center	6677	Dept. Of Entomology			7064
U.S. Dept. Of Interior		University Of California, Davis			
Bureau Of Commercial Fisheries		Dept. Of Entomology And Botany			6933
Division Of Biological Research		University Of California, Davis			
Marine Mammal Biological Laboratory.	7392	Dept. Of Plant Pathology	6716	6838	6906
U.S. Forest Service, Asheville, N.C.		University Of California, Davis			
Forest Disease Research	6766	Dept. Of Veterinary Pathology			7308
U.S. Forest Service, Columbus, Ohio		University Of California, El Centro			
Central States Forest Experiment Station	7001	Agricultural Extension Service			7586
Unilever Research Lab, Bedfordshire, England	7290	University Of California, Fresno			
United Fruit Company, La Lima, Honduras	7720	State Dept. Of Public Health Mosquito Project			6514
United Nations, Phnom-Penh, Cambodia		6515 6564			
Rinderpest Control	7633	University Of California, Irvine			
United States Rubber Company, La Mirada, Calif.		Division Of Biological Sciences			6541
Naugatuck Chemical Division		University Of California, Los Angeles		6678	6700
Research And Development Dept.	6998	6899 6970 6971			
Univ. Of Cambridge, Eng.		University Of California, Los Angeles			
School Of Veterinary Medicine	7248	Dept. Of Zoology			6511
University Of California, Davis		University Of California, Riverside	6640	6667	6718
School Of Veterinary Medicine		6852 6869 6946 6979	7065	7114	7719
Depts. Of Pathology And Clinical Pathology	7441	7727 7744 7747			
Universities Federation For Animal Welfare, London, England	7497	University Of California, Riverside			
		Citrus Experiment Station	6687	6982	7004
University College Hospital Medical School, London, Eng.		7084 7576 7580 7645	7649	7650	7661
Dept. Of Bacteriology	6641	University Of California, Riverside			
University College Hospital Medical School, London, England		Citrus Experiment Station			
Dept. Of Bacteriology	6642 6644	Dept. Of Biological Control			7058
University College Hospital, London		University Of California, Riverside			
Dental Dept.	7440	Citrus Experiment Station			
University College Of North Wales, Bangor		Dept. Of Biological Control			
School Of Agriculture		Laboratory Of Insect Pathology			6539
Dept. Of Biochemistry And Soil Science	7300	University Of California, Riverside			
University College, Dublin, Ireland		Department Of Plant Pathology			6952
Dept. Of Medicine		University Of California, Riverside			
Faculty Of Veterinary Medicine	7422	Dept. Of Plant Pathology	6741	6742	6745
University Of Alberta, Canada		6978			6829
Dept. Of Animal Science	7140	University Of California, Riverside			
University Of Alberta, Edmonton, Canada		Laboratory Of Insect Pathology			
Dept. Of Entomology	7674	Dept. Of Biological Control			6538
University Of Arizona, Tucson	6834 6928	University Of Cambridge			
University Of Arizona, Tucson		Dept. Of Veterinary Clinical Studies			7450
Agricultural Experiment Station		University Of Cambridge			
Dept. Of Entomology	7118	Dept. Of Veterinary Clinical Studies.			7336
University Of Arizona, Tucson		University Of Cambridge			
Dept. Of Plant Pathology	6711	School Of Veterinary Medicine			
University Of Arkansas		Dept. Of Veterinary Clinical Studies			7469
Dept. Of Plant Pathology	6966	University Of Connecticut	6450		6495
University Of Arkansas, Fayetteville	7036	University Of Costa Rica, San Jose, Costa Rica			
University Of Baghdad, Iraq		Dept. Of Parasitology			6666
College Of Agriculture	6936	University Of Delaware			
University Of Baghdad, Iraq		Virginia Truck Experiment Station			
College Of Medicine		Entomology Dept.			7017
Dept. Of Bacteriology	7593	University Of Delaware, Newark			6990
University Of Birmingham		University Of Dublin, Ireland			
Depts. Of Pathology And Bacteriology	7296				



# ORGANIZATION INDEX

Trinity College	7376			Dept. Of Biology			6995
University Of Edinburgh, Scotland				University Of Minnesota, St Paul			6816
Royal (Dick) School Of Veterinary Studies				University Of Minnesota, St. Paul	6840	6842	6879
Dept. Of Veterinary Bacteriology	7312			6935 6957			
University Of Florida				University Of Minnesota, St. Paul			
Dept. Of Poultry Science	7342			Animal Disease Eradication Division			7407
University Of Florida				University Of Minnesota, St. Paul			
Dept. Of Veterinary Science	7508			Dept. Of Entomology And Economic Zoology		6456	6609
University Of Florida, Belle Glade				6611			
Everglades Experiment Station	6939	7006		University Of Minnesota, St. Paul			
University Of Florida, Gainesville	6870	6929		Dept. Of Plant Pathology And Botany		6715	7643
University Of Florida, Gainesville				University Of Minnesota, St. Paul			
Dept. Of Plant Pathology	6725	6832	6972	Dept. Of Plant Pathology And Physiology			6866
University Of Florida, Gainesville				University Of Minnesota, St. Paul			
Dept. Of Veterinary Science			7540	Fisheries And Wildlife			
University Of Florida, Lake Alfred				Dept. Of Entomology			6497
Citrus Experiment Station	6786	7098		University Of Minnesota, St. Paul			
University Of Glasgow				Institute Of Agriculture			
Veterinary School			7262	Dept. Of Plant Pathology And Botany		6876	6893
University Of Glasgow				University Of Minnesota, St. Paul			
Veterinary School				Institute Of Agriculture			
Dept. Of Veterinary Pathology			7428	Dept. Of Plant Pathology And Physiology			6702
University Of Glasgow				University Of Missouri			7648
Veterinary School				University Of Missouri			
Veterinary Hospital			7502	Dept. Of Agricultural Chemistry			7139
University Of Glasgow Veterinary Hospital, Scotland			7383	University Of Missouri, Columbia		6820	6987
University Of Glasgow, Scotland				University Of Missouri, Columbia			
Veterinary Hospital			7415	Dept. Of Horticulture			6701
University Of Hawaii, Honolulu				University Of Montana			6915
College Of Agriculture				University Of Nebraska			
Hawaii Agricultural Experiment Station			7646	Dept. Of Agronomy			7120
University Of Hawaii, Honolulu				University Of Nebraska			
Dept. Of Plant Pathology	6768	6769	6863	Dept. Of Poultry Science			7141
University Of Hawaii, Kapaa, Kauai				University Of Nebraska			
Dept. Of Plant Pathology				Dept. Of Veterinary Science		7534	7535
Kauai Branch Station			6945	University Of Nebraska, Lincoln		6922	6940
University Of Idaho				University Of Nebraska, Lincoln			
Agricultural Experiment Station			6765	Dept. Of Plant Pathology			7109
University Of Idaho Agric. Experiment Station, Caldwell				University Of New Hampshire, Durham			6868
7310				University Of Pennsylvania, Phila.			
University Of Illinois			7705	School Of Veterinary Medicine			7341
University Of Illinois, Urbana	6579	6784		University Of Pennsylvania, Philadelphia			
University Of Illinois, Urbana				Zoological Laboratory			6518
Botany Dept.			6910	University Of Pittsburgh			6653
University Of Illinois, Urbana				University Of Queensland, Brisbane, Australia			
Dept. Of Entomology			7081	Veterinary School			7309
University Of Illinois, Urbana				University Of Rhode Island			6493
Dept. Of Plant Pathology	6767	6782	7704	University Of Rhode Island, Kingston			7025
University Of Illinois, Urbana				University Of Sheffield, Eng.			
Illinois Dept. Of Agric. Diagnostic And Research Laboratory				Dept. Of Bacteriology		7596	7597
Agricultural Experiment Station				University Of South Dakota			6451
College Of Veterinary Medicine			7616	University Of The Philippines, Los Banos, Laguna			
University Of Kansas, Lawrence				College Of Agriculture			
Dept. Of Entomology			6676	Dept. Of Entomology			6530
University Of Kentucky, Lexington	7053	7054	7086	University Of Tokyo, Bunkyo-ku, Tokyo, Japan			
University Of Kentucky, Lexington				Faculty Of Agriculture		6552	6553
Dept. Of Plant Pathology			6865	University Of Udaipur, India			
University Of Liverpool				Agricultural Experiment Station			
Dept. Of Veterinary Pathology			7370	Department Of Plant Pathology			6788
University Of Liverpool Field Station, Neston, Eng.				University Of Utah, Salt Lake City			6943
Dept. Of Veterinary Preventive Medicine			7605	University Of Utrecht, Netherlands			
University Of Liverpool, Eng.				Institute Of Veterinary Bacteriology			7536
Dept. Of Veterinary Preventive Medicine			7530	University Of Virginia			7088
University Of Liverpool, England				University Of Washington		6674	6931
Dept. Of Veterinary Pathology			7526	University Of Western Ontario, London, Canada			
University Of Liverpool, England				Dept. Of Zoology			6587
School Of Veterinary Science			7299	University Of Western Ontario, London, Ontario, Canada			
University Of Maryland				Dept. Of Biochemistry			6600
Dept. Of Poultry Science			7451	University Of Wisconsin			6812
University Of Maryland				University Of Wisconsin			
Dept. Of Veterinary Science			7445	Dept. Of Entomology			6590
University Of Maryland, College Park	6956	7014	7051	University Of Wisconsin			
7103 7572 7675				Dept. Of Poultry Science			7137
University Of Maryland, College Park				University Of Wisconsin, Madison		6758	6814
Dept. Of Botany			6783	6831 6851 6872 6900		6907	6823
University Of Massachusetts			6457	6965 7722 7731 7743			6924
University Of Massachusetts, Amherst			7108	University Of Wisconsin, Madison			
University Of Massachusetts, Amherst				Dept Of Plant Pathology			7756
College Of Agriculture				University Of Wisconsin, Madison			
Feed And Fertilizer Control Service			7680	Dept. Of Entomology	6570	7008	7026
University Of Michigan, Ann Arbor				7673			7672
Herbarium And Dept. Of Botany			6464	University Of Wisconsin, Madison			
University Of Minnesota	6519	6697	6709	Dept. Of Plant Pathology	6804	6813	6878
6780 6794 7056 7127 7224 7284			7539	6898 6962			
7541 7644 7654				University Of Wyoming			7104
University Of Minnesota				University, Stockholm, Sweden			
Dept. Of Plant Pathology And Physiology			7128	Institute Of Organic Chemistry And Biochemistry			6509
University Of Minnesota				Veterinary Investigation Center, Wolverhampton, England			
Dept. Of Poultry Science			7136	7337			
University Of Minnesota, Duluth				Veterinary Investigation Centre, M.A.A.F., reading, England			

# ORGANIZATION INDEX

7406			
Veterinary Investigation Centre, M.A.F.F., Leeds, Eng.			
7542			
Veterinary Investigation Centre, Norwich, England	7364		
Veterinary Investigation Centre, Penrith, England	7240		
Veterinary Investigation Centre, Sutton, Eng.	7410		
Veterinary Investigation Centre, Sutton, England	7272		
7273			
Veterinary Investigation Centre, Weybridge, England	7326		
Veterinary Investigation Centre, Weybridge, England	7325		
Veterinary Investigation Centre, Wolverhampton, Eng.	7480		
Veterinary Investigation Centre, Yorkshire, England	7453		
Veterinary Research Division, Belfast, Northern, Ireland			
7529			
Veterinary Research Institute, Onderstepoort, South Africa			
7396			
Veterinary Research Laboratory, Kabete, Africa			
Dept. Of Veterinary Services	7505		
Veterinary Research Laboratory, Kenya, Africa	7239		
7595			
Veterinary Research Laboratory, Mpwapwa, Tanganyika	7630		
Veterinary Research Laboratory, Southern Rhodesia	7269		
Veterinary Research Laboratory, Tanganyika, Africa	7482		
Virginia Agricultural Experiment Station			
Shenandoah Valley Research Station	7080		
Virginia Agricultural Experiment Station, Blacksburg	6535		
Virginia Polytechnic Institute	6856		
Virginia Polytechnic Institute, Blacksburg			
Department of Plant Pathology and Physiology	6825		
Virginia Polytechnic Institute, Holland	7632		
War Dept., Porton Down, Salisbury, Eng.	7455		
Washington State University			
Dept. Of Animal Sciences	7142		
Washington State University, Prosser			
Irrigation Experiment Station	6761		
Washington State University, Pullman	6871	6882	
7436	7725		
Wellcome Research Laboratories, Kent, Eng.	7462		
Wellcome Research Laboratories, Kent, England	7461		
7466			
Wellcome Research Laboratory, Kabete, Kenya	7599		
Wellcome Veterinary Res. Station, Tunbridge Wells, Eng.			
7603			
Wellcome Veterinary Research Station, Sussex, England			
7270	7604		
Wesleyan University, Middletown, Conn.			
Dept. Of Biology	7709		
West African Cocoa Research Institute, Tafo, Ghana	6947		
West African Institute For Trypanosomiasis Research	7519		
West Virginia University, Morgantown	7082		
West Virginia University, Morgantown			
Dept. Of Plant Pathology,	7724		
West Virginia University, Morgantown			
Dept. Of Plant Pathology, Bacteriology, And Entomology			
6774			
Wisconsin Conservation Dept., Madison	7116		
Wisconsin State Dept. Of Agriculture, Barron			
Regional Animal Diagnostic Laboratory	7235		
Wood Products Insect Lab., Gulfport, Miss.	6634		





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